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ABSTRACT

This guide presents up-dated information, on a world-wide basis, on training facilities in documentation and information work. Only data relating to the formal training of documentalists, information workers and special librarians are included, except for those countries in which only short courses or seminars are available. Forty-seven countries are listed in alphabetical order, with a total of 159 institutions, listed under these countries, arranged alphabetically by the English version of place-name locations within the countries. The level of training, post-graduate, graduate, non-graduate, or special, available at each location is listed. A list of courses for users and potential users and a list of more specialized courses are appended. (AB)

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① See next page

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A Guide to the World's TRAINING FACILITIES IN DOCUMENTATION AND INFORMATION WORK

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INTRODUCTION

Four years have already elapsed since the first edition of this Guide was published. In the meanwhile information activity has been expanding rapidly in many countries, international co-operation keeping steady pace with it. New services and information centres are coming into being in developing countries, and scientific and technical information problems occupy more and more the interest of inter-governmental organizations, such as UNO, UNESCO, COMECON, OECD. A UNESCO/ICSU Central Committee is considering the creation of a World Science Information System - UNISIST. In Moscow, in 1969, an International Center of Scientific and Technical Information was called into being. FID activity has been expanding considerably, its members growing in number and its international role intensifying.

Forms and methods of processing, storing and disseminating information are changing along with the development of informational activity. Rapid progress is to be seen in this field. Modern technical means, such as computers and new techniques in the reproduction of documents, and their transmission to distant places, are being introduced with growing speed.

The development of information has close interrelationships with the problems of training documentalists. Training programmes have to take into account the qualifications required of documentalists by information centres willing to employ them. Consequently training programmes need to include new forms and methods in information processes and sometimes should go ahead of introducing them into practice.

The strengthening of international co-operation requires the correlation of training between one country and another, and this is particularly valid for countries co-operating by way of exchange of information materials and services. So exchange of experience relevant to methods of training has a great importance too, and it allows for raising training levels and effects. For this reason the first edition of the Guide to the world's training facilities in documentation and information work, published in 1965 by FID in co-operation with CIINTE and under the auspices of the FID Training Committee, was welcomed both by FID members and information services interested in training documentalists.

Opinions coming from various countries, and an exchange of views within the FID Training Committee itself, crystallized in a decision to publish a second updated and enlarged edition of the Guide. This work has been taken up by CIINTE and carried out by the Secretary of the FID Training Committee. Materials from respective countries were collected, then arranged according to the Guide's general programme and prepared for print.

At the meeting of FID/TD at Łańcut, in May 1969, training problems were thoroughly discussed along with training programmes, having regard to anticipated developments in information work. In this connection also the second edition of the Guide came under review.

The present edition, no doubt better than the first one, will be of use to all organizations, institutions and persons active in training documentalists and interested in this problem. It will, undoubtedly, contribute to an improvement of training and its results, as well as to the development of international co-operation.

I wish to thank the FID Training Committee Members for all their efforts on behalf of the Guide, for their advice and counsel given at meetings or addressed directly to the FID/TD Secretary. Particular acknowledgement is due to Mr. F. Liebesny for his share, i.e. the final shaping of the text and giving it proper form, and for the time he generously offered to accomplish this task.

I warmly thank Dr. F. Sviridov, the FID Secretary General, and Mr. W. van der Brugghen for supplying us with documents and assisting in the completion of the task.

I also thank all National Members of FID and all training institutions who supplied us with necessary materials. Among them particular thanks are due to Dr. Ch. Shilling for information on training information scientists in the USA, which he helpfully gathered.

Preparing the second edition of the Guide for print called for much work: the exchange of hundreds of letters and fitting the information received into the general outlines of the publication. For accomplishing all this thanks are due to Miss K. Ostrowska, the Secretary of FID/TD.

Finally I wish to express the simple hope that the Guide will prove serviceable to all its users.

W. Piróg
Director of CIINTE

A MESSAGE FROM THE FID/TD CHAIRMAN

"A Guide to the World's Training Facilities in Documentation and Information Work" may be regarded as a good example of FID Training Committee work.

Beside its importance for the users, in particular for the establishments concerned with training, the Guide plays an important part in the provision of information for the FID Training Committee itself. The materials it contains make possible to follow the progress in training documentalists throughout the world and draw conclusions regarding the programmes of work and kinds of elaborations to be done by the Committee.

One of the nearest tasks of the FID/TD is the establishment of model programmes for training both documentalists and information users, the other is elaboration of a survey of the world's methods and forms of training documentalists. Also in this respect the present edition of the Guide and the information it contains is of great use.

The comparison of the merits of the materials which have been registered in the present edition of the Guide with those from the first issue testifies to a considerable progress in the training of documentalists throughout the world. FID has no doubt a share in it.

Here is the right place to express warm thanks to all who contributed to the Guide, to members of the FID Training Committee for valuable guidance submitted individually or at the Committee meetings, and last but not least, to the editors of the Guide for the great effort they put into accomplishing the work.

Acknowledgement is also due to the Central Institute for Scientific, Technical and Economic Information, in Warsaw, whose contribution allowed for the speedy compilation of the Guide.

Any constructive criticism coming from users of the Guide will be welcomed and should be addressed to the FID/TD Secretariat.

Dr. Adam Górski
Chairman of FID/TD

FOREWORD

Notes for users of the Guide

The aim of this Guide is to present the fullest up-to-date details about the training facilities in documentation and information work in the World. Since the publication of the first edition of this Guide in 1965, many developments in this field have taken place at all levels of training. Firstly, the number of educational establishments concerned with this discipline has increased considerably, several universities have created chairs specially concerned with information science and many new degree courses have been introduced. Secondly, the increasing demands for specialists in information work, in academic institutions and in industry, have led to the setting-up of more specialized training programmes. This expansion is also reflected in the fact that this edition covers 11 more countries than the previous edition.

The information presented in this volume has been collected from several sources:

1. from the replies received to a questionnaire sent out by the FID/TD Secretariat in 1968. Unfortunately not all recipients replied so that some of the data are far from complete;
2. from prospectuses received from training establishments, though not all were as up-to-date as could have been wished;
3. from the published literature, such as review articles and conference proceedings (e.g. of the "International Conference on Education for Scientific Information Work", London, 1967, published by FID).

The collected material was collated and edited according to principles laid down by the FID Training Committee, so that only data relating to the formal training of documentalists, information workers and special librarians are included. In general, information about courses in traditional librarianship and short courses or seminars has been excluded from the Guide; however, some brief information is presented in respect of those countries where no other form of training is known to exist.

In this Guide the relevant information is presented in the following manner:

a) alphabetical by country;
b) for each country, alphabetical by location (using the English version of place-names, e.g. The Hague and not 's-Gravenhage);
c) for each location, by level:
  - post-graduate (where a university degree is the condition of admission to studies or courses leading to the degree or sometimes only to professional qualifications),
  - graduate (where a secondary school education is required and training leads to Bachelor, Master or Doctor title),
  - non-graduate (where a secondary education is required, and the training does not lead to a university degree, the trainee being

granted only a diploma or certificate of professional qualifications),
- special (special courses are those in some speciality, such as classification, patents, mechanization, etc.)

For some courses, the level of training is not marked, because of lack of adequate information. Some courses, both introductory and advanced, admit graduates as well as non-graduates, and it has therefore not been possible to define the level clearly.

Two new features have been added at the end of the Guide: 1) a list of courses for users and potential users (students in various faculties) of information, and 2) a list of more specialized courses.

The part dealing with information users is incomplete; no doubt users are trained in many countries besides those enumerated in the Guide. Lacking information, we could not insert more data but we hope to be able to fill this gap by publishing supplements to the Guide in the FID News Bulletin. This will be possible if the relevant data reach the FID/TD Secretariat[+].

159 training institutions in 47 countries are dealt with in detail in the Guide, to say nothing of various training facilities mentioned in "Additional information". In 11 countries information users are trained (according to data at our disposal).

K. Ostrowska
FID/TD Secretary

[+] c/o CIINTE, Al. Niepodległości 188, Warsaw

Part I - TRAINING IN DOCUMENTATION AND INFORMATION

ARGENTINA

Apart from the courses organized by the Centre of Scientific Documentation there are no separate courses in documentation and information science in Argentina. The subject is only taught in library schools. There are 9 library schools in Argentina. Condition of admission to the schools is, in principle, a leaving certificate of a secondary school. Language of lectures is Spanish.

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BUENOS AIRES

Centro de Documentación Científica - CNICT (Centre of Scientific Documentation),
Rivadavia 1917 - R 25, Buenos Aires

Programme

1. Concept of documentation
2. Problem of sources of documentation
3. The library and the centres of documentation
4. The documentalist as auxiliary worker or participant in research work
5. Problems deriving from the current growth of scientific literature
6. Current solutions in information handling. Automation
7. Bibliographical study and searching
8. Investigation or searching of data
9. Evaluation of reference and bibliographic repertories
10. Criteria for an encyclopaedia
11. Function of research in the application of results of investigations for utilitarian purposes
12. Documentation research
13. Localization and selection of information sources
14. References, repertories, bibliographies
15. Catalogues
16. Union catalogues
17. Classification
18. Bibliography
19. Criteria for bibliographies
20. Preparation of a bibliography for individual use
21. Services of documentation
22. The centre of scientific documentation
23. Forms of scientific papers (literature)
24. Components of scientific papers
25. Bibliographical citations

Type of training	Course in documentation for research workers
Conditions of admission	Status of a research worker in fields of medicine, chemistry or biology; age limit of 40 years; application for admission with

	appropriate consent and recommendation from employer
Duration of training	26 days (3 times a week)
For what kind of work are the students being trained	Information workers in medicine, chemistry and biology
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Spanish
Number of trainees	Limited to 45 participants (15 for each special field)

List of library schools offering courses in library science and documentation

BUENOS AIRES

Universidad del Museo Social Argentino, Facultad de Servicio Social, Escuela de Bibliotecología (University of the Argentine Social Museum, Faculty of Social Service, School of Library Science),
Corrientes 1723, Buenos Aires

Programme

1. Bibliography (general and special)
2. Cataloguing
3. Classification
4. Abstracting
5. Administration and organization
6. Theory and history of science
7. Elements of law and economics
8. Psychology of reader and development of reading

Duration of training	2 or 3 years
Degrees or other qualifications granted	After two years: Bibliotecario After 3 years and presentation of Master's thesis: Licenciado en Bibliotecología y Documentación

BUENOS AIRES

Universidad de Buenos Aires, Facultad de Filosofía y Letras, Carrera de Bibliotecología (University of Buenos Aires, Faculty of Philosophy and Letters, Chair of Library Science),
Reconquista 572, Buenos Aires

Programme

1. Bibliography
2. Cataloguing
3. Classification

4. Abstracting
5. Documentation
6. English
7. French

Duration of training	3 years
Degrees or other qualifications granted	Bibliotecario

BUENOS AIRES

Escuela Nacional de Bibliotecarios, Biblioteca Nacional, Dirección General de Cultura, Ministerio de Educación y Justicia de la Nación (National School of Librarians, National Library, General Directorate of Culture, Ministry of Education and State Justice),
Méjico 564, Buenos Aires

Programme

1. Administration
2. Advisory services
3. Cataloguing
4. Classification
5. Psychology and aesthetics of reader
6. Foreign language

Duration of training	2 years
Degrees or other qualifications granted	Bibliotecario

CORDOBA

Universidad Nacional de Cordoba, Facultad de Filosofía y Humanidades, Escuela de Bibliotecarios (National University of Cordoba, Faculty of Philosophy and the Humanities, School of Librarians),
Ciudad Universitaria - Pabellón España

Programme

1. Cataloguing and classification
2. Organization and administration
3. Bibliography and abstracting
4. Assistance to readers
5. Foreign language

Duration of training	2 years
Degrees or other qualifications granted	Bibliotecario

LA PLATA

Universidad Nacional de la Plata, Facultad de Humanidades y Ciencias de la Educación, Carrera de Bibliotecologia (National University of La Plata, Faculty of the Humanities and Pedagogics, Chair of Library Science),
Calle 6 No 775, La Plata (Prov. Bs.As.)

Two courses are organized:

A. For librarians of university libraries

Programme

1. Cataloguing and classification
2. Foreign language

Candidates having university diploma are only admitted.

Duration of training	1 year
Degrees or other qualifications granted	Bibliotecario Universitario

B. For librarians of technical libraries

Programme

1. Cataloguing and classification
2. Abstracting and bibliography
3. Foreign language

Duration of training	2 years
Degrees or other qualifications granted	Técnico Bibliotecario

LA PLATA

Escuela Superior de Bibliotecologia, Dirección de Enseñanza Superior media y Vocacional, Ministerio de Educación de la Provincia de Buenos Aires (Higher School of Library Science, Directorate of Advanced and Vocational Training, Ministry of Education of the Province of Buenos Aires),
Calle 46 No 483, La Plata (Bs.As.)

Programme

1. Cataloguing and classification
2. General bibliography and abstracting
3. Introduction to philosophy
4. History of culture
5. Introduction to modern culture
6. Foreign language

Duration of training	2 years
Degrees or other qualifications granted	Bibliotecario

ROSARIO

Universidad Popular de Rosario, Departamento de Extensión Universitaria - Section Rosario, Universidad Nacional del Litoral, Escuela de Bibliotecologia (The People's University of Rosario, Department of Extension Studies - Rosario Section, National University of Litoral, School of Library Science),
Santa Fé 2085, Rosario (Santa Fé)

Programme.

1. Cataloguing and classification
2. Abstracting and bibliography

Duration of training	2 years
Degrees or other qualifications granted	Bibliotecario

ROSARIO

Escuela de Bibliotecarios, Instituto de Profesiones Técnical "20 de Junio" - Ministerio de Educación y Cultura de la Provincia de Santa Fé (School of Librarians, Institute of Technical Professions "20th June" - Ministry of Education and Culture of the Province of Santa Fé),
Moreno 965, Rosario (Santa Fé)

Programme

1. Bibliography and abstracting
2. Cataloguing and classification (theory and practice)
3. Literature
4. English
5. French

Duration of training	2 years
Degrees or other qualifications granted	Bibliotecario

SAN MARTIN

Escuela de Bibliotecologia, Consejo General de Educación, Ministerio de Educación y Cultura de la Provincia de Santa Fé (School of Library Science, General Council of Education, Ministry of Education and Culture of the Province of Santa Fé),
San Martin 3459 (Santa Fé)

Programme

1. Cataloguing and classification
2. Bibliography and abstracting
3. French
4. English

Duration of training	2 or 3 years
Degrees or other qualifications granted	After 2 years: Bibliotecario After 3 years: Bibliotecólogo

BELGIUM

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BRUSSELS

Ecole Provinciale de Bibliothécaires (Regional Library School),
41, Rue des Tanneurs, Brussels 1

Director: J. van Hove

Year of foundation: 1960

GRADUATE

Programme	hours/week
First year	
1. General librarianship	1
2. Cataloguing and practical exercises	½
3. Bookselling and the elements of bibliography	½
4. Literature of the historical sciences and the history of civilization	1
5. Literature of the geographical sciences and the geography of the world	½
6. Literature of the social and economic sciences	½
7. Literature of the legal and administrative sciences	½
8. Literature of philosophy	½
9. Literature of philology	½
10. Literature of the pure sciences	½
11. Literature of the applied sciences	½
12. Literature of the biological sciences	½
13. German	1
14. English	1
15. Dutch	1
Total	10

Second year Library-Documentation Section	
1. Cataloguing	1
2. Bibliography	1
3. Problems in documentation	½
4. Classification and terminology	1
5. Universal Decimal Classification	½
6. Classification of social and economic sciences	1
7. Classification of pure and applied sciences	1
8. Commercial and industrial law	½
9. Administrative law	½
10. German	1
11. English	1
12. Dutch	1
Total	10

Third year	hours/week
1. German	1
2. English	1
3. Dutch	1
4. Seminars, conferences, visits	2
5. Practical exercises in bibliography and documentation	5
Total	10

Type of training	School of Library Science. The training is conducted along two lines: 1) librarianship, and 2) documentation, depending on the specialization chosen by the student after the first year of study, which is general for all students. Apart from the lectures the training also includes practical exercises, visits, the Royal Library, the public library, the children's library, the university library, printing works, bookbinding works, documentation centres, document reproduction institutions, etc.
Conditions of admission	1) at least 18 years old; 2) leaving certificate of a secondary school
Are foreign participants allowed	Yes
Conditions of admission	Same as for Belgian students
Duration of training	3 years. The fourth year of studies is optional; it is generally devoted to seminars, adaptation of the most recent methods and the preparation of a master's thesis
For what kind of work are the students being trained	Technical librarians, assistants in information centres, librarians of public libraries, employees of publishing houses
Examinations	Oral in: 1) Cataloguing 2) Bibliography 3) Classification after each year and a final examination
Degrees or other qualifications granted	Gradué en Sciences Bibliothéconomiques et Bibliographiques or Biblio-

	thécaire Documentaliste (depending on the selected line of studies) after three years. A Masters' Diploma may be conferred after the fourth year
Language of lectures	French, Dutch
Tuition fees	An entrance fee of 100 BF is obligatory and 100 BF for each year of studies
Number of trainees	French 10, Dutch 6

BRUSSELS

Institut d'Etudes Sociales de l'Etat,
26, Rue de l'Abbaye, Brussels 5

Director: A. Graffar

Year of foundation: 1964

GRADUATE

Course for Librarian-Documentalists

Programme	hours/year
First year	
I. Orientation course	
1. Philosophy	36
2. Philology	36
3. Introduction to law	18
4. Political economy	54
5. Statistics	36
6. Sociology	36
7. Psychology - pedagogics	36
8. Pure sciences	36
9. Biological sciences	36
10. Chemical sciences	36
11. Literature	54
12. History of civilization	36
13. Geography	36
II. Technical course	
1. Library science	126
2. History and production of the book	36
3. Editing - bookselling	36
4. Organization of public libraries	12
5. Different types of libraries and documentation centres	18
6. Typing	144

	hours/year
III. Languages	
1. Dutch	72
2. English	108
3. German	72
IV. Visits to libraries and documentation centres	60

Second year

The curriculum of the second year is more technical in its character and its practical training prepares students for active professional work.

	hours/year
I. Orientation course	
a) Option: Humanities	
1. Literature	90
2. Geography	36
3. Contemporary history	36
4. Constitutional law	36
5. History of art	36
6. History of religions	18
7. Civil law	27
8. International law	36
9. Commercial law	27
b) Option: Science	
1. Statistics	36
2. Physics and mathematics	108
3. Chemical sciences	72
4. Industrial technology	72
5. Natural sciences	72
6. International law	36
7. Physical geography	36
II. Technical course	
1. Library science - theory	108
2. Practical exercises	72
3. Organization of documentation services	72
4. Reference work and bibliographies	90
5. Seminaries on special subjects	36
III. Languages	
1. Dutch	72
2. English: option Humanities	108
3. English: option Science	108
4. German	72
5. Russian or Spanish or Italian	72

IV. Practical training: 1 month

Third year

During the third year the students continue to improve their languages and go deeper into various questions relevant either to centres of scientific and technical documentation or to general libraries devoted to the humanities.

Courses and practical training interchange in order to permit the drafting of a final report of the studies on a question on library science.

	hours/year
I. Common course	
1. Documentation techniques	54
2. Copyright	9
3. Psychology of the reader	18
4. Techniques of dissemination of information	18
II. Optional courses	
a) Option: Humanities	
1. International organizations	27
2. Contemporary art	36
3. Political regimes	54
4. Literature for young people	18
5. History	36
b) Option: Science	
1. Biological sciences	36
2. Chemistry	36
3. Pure sciences	36
4. Statistics	36
5. Patents	9
6. International organizations	27
III. Languages	
1. Dutch	72
2. English: option Humanities	108
3. English: option Science	108
4. German: option Humanities	108
5. German: option Science	108
6. Russian or Italian or Spanish	72

IV. Practical training: 5 months

Type of training	Academic study in library science and documentation. Documentation is offered as a part of the curriculum in library science
Conditions of admission	Leaving certificate of a secondary school (baccalauréat); a degree in humanities or its equivalent
Are foreign participants allowed	Yes
Conditions of admission	Same as for Belgian students
Duration of training	3 years (full-time)
For what kind of work are the students being trained	Scientific and technical librarians

Examinations	Oral and written examinations after each year of study and final examination
Degrees or other qualifications granted	Diplôme de Bibliothécaire-Documentaliste
Language of lectures	French
Tuition fees	500 BF/year
Number of trainees	In September 1967: 9 graduates In September 1968: 10 graduates
Other data	Lectures on automatic documentation are intended.

LIEGE

Université de Liège, Bureau d'Organisation Technique (B.O.T.) (University of Liège, Bureau of Technical Organization),
55 Avenue des Tilleuls, Liège

Director: (Mme) E. Sauvenier-Goffin

Year of foundation of the course: 1964

Programme

1. The organization of documentation: international, national and specialized institutions
2. Conventional files and bibliographies: principles, terminology, advantages and disadvantages; updating, production, dissemination, and translation problems
3. Mathematical and physical bases for documentation techniques
4. Traditional indexing - key-words and descriptors
5. Classification systems
6. Thesaurus - documentary languages
7. General principles of "file" organization
8. Types of "file" organization, conventional and new storage devices (various types of card, punched tapes and cards, magnetic storage devices, films)
9. Data storage for various devices, equipment used, advantages and disadvantages
10. Searching
11. Storage of text
12. Automatic searching (by computers, by photographic selectors): general principles, types of memory system, sample programmes
13. Mechanized production and printing of bibliographic tools - machines for handling tapes and cards, photo-listing machines, and computers. Examples of indexes and current bibliographies
14. Automatic reading - prospects
15. Mechanized systems applicable to library and documentation work in a university
16. Modern reproduction systems

In addition to the lectures, practical exercises are given to show how to handle the various types of file, as well as the machines used at the B.O.T., such as:

1. An IBM 870 Document Writing System (with 836 control unit, 866 typewriters, and 961 tape punch). This machine can produce punched-card, 8-channel paper tape, and printed document output; it can convert paper tape to card and vice-cersa; it can be programmed by card punch keyboard; function and format are determined by control - panel wiring.
2. A Flexowriter 2201 (8-channel paper tape) with auxiliary reader, formats and selective printing can also be programmed.

Type of training	Regular course in documentation
Conditions of admission	University degree
Duration of training	30 hours
For what kind of work are the students being trained	Present and future heads of documentation units and other university staff
Examinations	Yes
Degrees or other qualifications granted	None
Language of lectures	French
Tuition fees	400 BF + ca. 150 BF for examination fee
Financial aid for trainees	No
Number of trainees	Ca. 10 per year
Other information	The Computation and Information Processing Centre of the University ("Centre de Calcul et de Traitement de l'Information", "CECTI") has organized its own advanced courses in computer technology, FORTRAN programming and machine language. Its team of computer engineers and mathematicians co-operate with the various university departments in solving their specific problems. In its task of organizing the gradual conversion of the university libraries into documentation units, the staff of B.O.T. work in close connection with the staffs of the various documentation units and provide practical training.

BRAZIL

Besides the courses organized by the Brazilian Institute of Bibliography and Documentation there are no separate courses in documentation in Brazil. The subject is only taught in library schools. There are 14 library schools in Brazil which are listed below: 12 schools in universities, two independent. They provide training in library and documentation. "Documentation" is one among ten disciplines that all schools are obliged to teach since 1962. "Documentation" is taught in one year, generally in the third year.

The Ministry of Education and Culture obliges all universities to have a "curriculum minimum". Schools, therefore teach other disciplines but respect the "curriculum minimum". All library schools in Brazil have a three-year curriculum with daily attendance from 1st March to 15th December.

"Curriculum minimum"

1. History of books and libraries
2. History of literature
3. History of art
4. Introduction to historical and social studies
5. Evolution of philosophy and scientific thought
6. Libraries, organization and administration
7. Cataloguing and classification
8. Bibliography and reference
9. Documentation
10. Palaeography

Programme of documentation

1. Library science and documentation
2. Concepts of documentation and documents
3. Documentation, bibliography, study of archives and museums, etc.
4. Documentation and information, theory of information
5. Classification of documents
6. Graphic documentation, origin, objectives, importance and conceptions
7. Documentation and bibliographic organization
8. Documentation as production, assembly and diffusion of graphic records
9. Standardization of documentation. International Organization of Standardization and its Technical Committee 46. Brazilian Standardization Association of Technical Standards and its Committee of Documentation
10. Brazilian standards in the field of documentation NB-60, NB-61, NB-62, NB-69, NB-83, NB-85, NB-87, TB-43, PNB-66
11. Preparation of documents. Format of the paper. Editing
12. Assembly of documents
13. Universal Decimal Classification. FID/CCC and IBBD/CDU
14. Essential elements of documentation: library, archives, film files, disc files, map files
15. Diffusion of documents

16. Bibliographies and bibliographic indexes. Microfilms and microcards. Translations
17. Reproduction of documents
18. Machines. Photographic, heliographic, thermal, electrical apparatus. Mechanics of reproduction
19. Mechanical selection of documents
20. Storage and retrieval of information
21. Abstracting, reference, cataloguing, etc., services
22. Applied bibliographic research
23. Documentation on the national plane. IBBD
24. Documentation on international plane. FID
25. Organization and administration of documentation services and centres
26. Specialized bibliography on documentation

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

List of training facilities offering courses in Library Science and Documentation

BELÉM

Universidade do Pará, Curso de Biblioteconomia,
Avenida Governador José Malcher, 1327, Belém, Pará

Library Science

Degrees or other qualifications granted Diploma de Bibliotecario

BELO HORIZONTE

Universidade de Minas Gerais, Curso de Biblioteconomia,
Cidade Universitaria - Pampulha, Caixa Postal 1906, Belo Horizonte, Minas Gerais

Library science

Degrees or other qualifications granted Diploma de Bibliotecario

BRASILIA

Universidade de Brasília, Curso de Biblioteconomia,
"Campus" Universitário Asa Norte, Brasilia, D.F.

Library science

Degrees or other qualifications granted Diploma de Bibliotecario

CAMPINAS

Universidade Catolica de Campinas, Faculdade de Biblioteconomia de Campinas,
Rua Marechal Deodoro 1099, Caixa Postal 317, Campinas, São Paulo

Library science

Degrees or other qualifications granted Diploma de Bibliotecario

CURITIBA

Universidade do Paraná, Curso de Biblioteconomia e Documentação,
Rua General Carneiro 460, Curitiba, Paraná

Library science and Documentation

Degrees or other qualifications granted Diploma de Bibliotecario-Documentalista

FORTALEZA

Universidade de Ceará, Curso de Biblioteconomia e Documentação,
Fortaleza, Ceará

Library science and Documentation

Degrees or other qualifications granted Diploma de Bibliotecario

NITERÓI

Universidade Federal do Estado do Rio de Janeiro, Escola de Biblioteconomia,
Rua Coronel Gomes Machado 74, Prédio da Reitoria da Universidade Federal do Estado do Rio de Janeiro, Niterói, Estado do Rio de Janeiro

Library science

Degrees or other qualifications granted Diploma de Bibliotecario

PÔRTO ALEGRE

Universidade do Rio Grande do Sul, Escola de Biblioteconomia e Documentação,
Avenida João Pessoa 52, Pôrto Alegre, Rio Grande do Sul

Library science and Documentation

Degrees or other qualifications granted Bacharel em Biblioteconomia

RECIFE

Universidade do Recife, Curso de Biblioteconomia e Documentação,
Avenida Conselheiro Rosa e Silva 1350, Recife, Pernambuco

Library science and Documentation

Degrees or other qualifications granted Diploma de Bibliotecario-Documentalista

RIO DE JANEIRO

Instituto Brasileiro de Bibliografia e Documentação - IBBD (Brazilian Institute of Bibliography and Documentation),
Av. General Justo 171, térreo,3^{o} e 4^{o} andares, Rio de Janeiro, Guanabara
President: Prof. C. Ribeiro Zaher

Course in scientific documentation

Programme

Academic subjects:
1. Philosophy and history of science
2. Cultural anthropology
3. Introduction to social sciences
4. Communication theory

Technical subjects:
1. Information analysis and control
2. Techniques of bibliographical research
3. Mechanization of information systems
4. Classification
5. Cataloguing
6. Organization and administration of information services
7. Reprography

Type of training	Course of scientific documentation
Conditions of admission	University degree
Are foreign participants allowed	From South American countries
Duration of training	9 months
For what kind of work are the students being trained	Documentalists, information workers, research workers, librarians
Examinations	Practical work, monthly. Two final examinations
Degrees or other qualifications granted	Certificate of specialization in scientific documentation
Language of lectures	Portuguese
Tuition fees	Free
Number of trainees	Since 1955: 285
Other data	The Course of Scientific Documentation was created in 1955, and since then has had the following specializations: technology, medical sciences, physics and mathematics, agricultural sciences, geology, chemical sciences, social sciences, natural sciences.

RIO DE JANEIRO

Curso de Biblioteconomia da Biblioteca Nacional,
Avenida Rio Branco 219/239, Rio de Janeiro, Guanabara

Library science

Degrees or other qualifications granted Diploma de Bibliotecário

RIO DE JANEIRO

Pontificia Universidade Católica de Rio de Janeiro, Escola de Biblioteconomia e Documentação "Santa Ursula",
Rua Farani 75, Botafogo, Rio de Janeiro, Guanabara

Library science and Documentation

Degrees or other qualifications granted Diploma de Bibliotecario-Documentalista

SALVADOR

Universidade da Bahia, Escola de Biblioteconomia e Documentação,
Avenida Araújo Pinho 22, Salvador, Bahia

Library science and Documentation

Degrees or other qualifications granted Bacharel em Biblioteconomia

SAO CARLOS

Escola de Biblioteconomia e Documentação de São Carlos,
Avenida Dr. Carlos Botelho 1465, São Carlos, São Paulo

Library Science and Documentation

Degrees or other qualifications granted Diploma de Bibliotecario-Documentalista

SAO PAULO

Universidade de São Paulo, Escola de Biblioteconomia da Fundação Escola de Sociologia e Política de São Paulo,
Rua General Jardim 522, Caixa Postal 7656, São Paulo

Library science

Degrees or other qualifications granted Bacharel em Biblioteconomia

BULGARIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

SOFIA

Sofijski Universitet "Kliment Ohridski" (Kliment Ohridski University in Sofia), **Chair of Library Science and Bibliography, Department of Philosophy and History,**
Sofia

Professor: T. Borov

Year of foundation of the courses: 1965

GRADUATE

Specialization: Scientific information

Programme	Full time courses hours	Extra-mural courses hours
1. Organization of librarianship in Bulgaria	15	4
2. Description, entries and classification of publications	90	30
3. Introduction to bibliography	90	30
4. General bibliography	90	30
5. Introduction to history and classification of sciences. Special bibliography	-	4
6. Organization and tasks of scientific information	30	6
7. Theory and methods of scientific information	180	45
8. Mechanization of informational activity (incl. mechanical translation)	75	15
9. Informational and bibliographic activity	15	4
10. Applied book science and reprography	30	3
11. A western language	225	-

Type of training	Courses in information science as a part of the curriculum in library science (Chair of Library Science and Bibliography)
Conditions of admission	For full-time studies students of the first year of higher technical, agricultural and medical schools are admitted Graduates from higher schools are admitted to the extra-mural studies

Are foreign participants allowed	No
Duration of training	Full-time studies: 7 semesters; extra-mural courses: 4 semesters
For what kind of work are the students being trained	Different types of information worker, subject information specialists, special librarians
Examinations	Full-time studies: 8; extra-mural courses: 9
Degrees and other qualifications granted	Information scientist
Language of lectures	Bulgarian
Tuition fees	Free
Number of trainees	12 persons completed studies in 1968
Other data	Plans for improving the system of training the information workers are under discussion. A new programme of graduate tuition has been suggested. The draft programme anticipates a reduction in the total of tuition hours to 650, a considerable reduction in hours devoted to library and bibliography work and the addition of new subjects, such as mathematical logic, programming and others

SOFIA

Centralen Institut po Naučno-Tehničeska i Ikonomičeska Informacija
(Central Institute for Scientific, Technical and Economic Information),
ul. "7 Noemvri" No. 1, Sofia

Director: Eng. Arsenov

Programme of a 5-days introductory course for information workers

	hours
1. Organization of scientific, technical and economic information	2
2. Collection of information materials	2
3. Information on patents	2
4. Information on standards	1
5. Analytical and synthetical treatment of documents	2
6. Information services. Systems of information retrieval	2
7. Principles for mechanization of information processing, storage and retrieval	2
8. Reprography	2
9. Information on trade literature	1
10. Planning of information activities and reporting	1

	hours
11. Practical work:	
a) Classification by UDC	2
b) Handling of punched cards and UNITERM cards.	2
c) Reprography	2

Programme of a 10-days advanced course for information workers

1. Organization of scientific and technical research in Bulgaria	3
2. Organization of scientific and technical information in Bulgaria and abroad	3
3. Collection of information materials	3
4. Information from unpublished sources	2
5. Universal Decimal Classification	2
6. Planning and reporting of the activities of information centres	2
7. Systems of information retrieval	3
8. Fundamentals of bibliography	3
9. Fundamentals of mechanization and automation of information activity	2
10. Edge-notched cards	2
11. UNITERM cards and peek-a-boo cards	2
12. Information on patents	2
13. Methods and devices for reprography	2
14. Practical work:	
a) Reprography	2
b) Classifying by UDC	2
c) Coding and working out of an edge-notched card	2
d) Handling of UNITERM cards and edge-notched cards	2

Type of training	Courses
Conditions of admission	Higher school graduates in technical or economic sciences, specialists in agriculture, medicine, etc., who are engaged in information activity; sometimes also those with secondary education only
Are foreign participants allowed	No
Duration of training	5 and 10 days
For what kind of work are the students being trained	Workers in information centres
Examinations	None
Degrees or other qualifications granted	Certificate of completing the course
Language of lectures	Bulgarian
Tuition fees	Free

Number of trainees	50 to 100 yearly
Other data	Courses of 2 types are planned: a) lasting 1 month, for training of new workers in information services; and b) lasting 2 months, for advanced training of persons who have already been engaged for some time in information work

CANADA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

MONTREAL

McGill University, Library School,
Montreal

Director: Prof. V. Ross

Year of foundation of the School: 1931 (the B.L.S. degree was first conferred)

POST-GRADUATE

Course for Master in Library Science

Programme

First year

1. History of libraries
2. Profession of librarianship
3. Cataloguing and classification
4. Technical processes
5. Reference materials and methods
6. Selection and use of books and related materials
7. Communication media and the library

Second year

1. Administration
   a) public library and the community
   b) college and university libraries
   c) special libraries
2. Library planning and equipment
3. Research methods
4. Research paper
   Research project
5. Advanced bibliography and reference methods
6. Problems and developments in cataloguing and classification
7. Government publications
8. Archives and records in libraries
9. Data processing and equipment
   Library applications of data processing
10. Library collections assessment and development
11. Business literature
12. Scientific and technical literature
13. Library materials and service for children, for young people in school and public libraries
14. History of the manuscript and printed book

Type of training	Graduate library school
Conditions of admission	1) Bachelor degree from an approved university. This degree must re-

	present four years of study 2) Knowledge of at least one language other than English
Duration of training	Two years
For what kind of work are the students being trained	Librarians of university and college, public, school and special libraries
Degrees or other qualifications granted	Master of Library Science
Language of lectures	English
Tuition fees	$ 640 (including library visits) $ 300 for students from McGill University
Financial aid for trainees	Scholarships: 1) Two annual scholarships of $ 400 each in honour of Dr. G.R. Lomer, former Director of the Library School 2) The Grolier Society Scholarship, $ 250 alternate years 3) The Ethelwyn M. Crossley Scholarship Fund, founded in honour of a former student of the school. Women students are given preference 4) The Elizabeth G. Hall Scholarship Fund, founded in memory of a former member of the McGill University Library staff 5) McGill University Library School Alumni Scholarship, $ 300 These awards are made, after due investigation and recommendation, to deserving students who require financial assistance to take the course. Application should be made to the Director of the School before May 1

MONTREAL

Université de Montréal, Ecole de Bibliothéconomie (University of Montreal, School of Librarianship),
C.P. 6128, Montreal 3

Director: L.-G. Denis

Year of foundation of the courses: 1961

POSTGRADUATE

The School of Librarianship provides one or two year full-time courses

Course of one year

Programme	hours
1. Librarianship	45
2. Library internal services: selection of documents	45
3. Library internal services: classification and cataloguing	45
4. Library external services	45
5. Cultural role of the book and of libraries	45
	225
Optional courses	
A 1. Reference and bibliography - basic sciences and applied sciences	45
A 2. Reference and bibliography - social sciences	45
A 3. Reference and bibliography - human sciences	45
B 1. Public libraries	30
B 2. Public libraries for children	30
B 3. School libraries	30
B 4. College libraries	30
B 5. University libraries	30
B 6. Special libraries	30
B 7. Organization and work of the cataloguing service	30
B 8. Audio-visual documents	45
B 9. Official documents	45
B10. Books and reading for children	30
B11. Books and reading for adolescents	30
B12. Books and reading for adults	30
B13. Indexing	15
B14. Electronic systems for processing of information in libraries	30

Course of two years

Programme	
First year	
1. Librarianship	45
2. Cultural role of the book and of libraries	45
3. Library external services	45
4. Economic and social development of Canada	30
5. Introduction to Canadian-French literature	15
6. Practical work on Canadian literature	15
7. Structure and methods of sciences	30
8. Elements of administration and organization	45
9. Fundamentals of sociology	30
10. Social organization and culture of the Province of Quebec	30
	330

	hours
Second year	
1. Internal services of the library: selection of documents	45
2. Internal services of the library: classification and cataloguing	45
3. Introduction to Canadian-English literature	15
4. Canadian political institutions	30
5. Introduction to computers	45
	180
Optional courses	
C 1. Reference and bibliography - basic sciences and applied sciences	45
C 2. Reference and bibliography - social sciences	45
C 3. Reference and bibliography - humanities	45
D 1. Public libraries	30
D 2. Public libraries for children	30
D 3. School libraries	30
D 4. College libraries	30
D 5. University libraries	30
D 6. Special libraries	30
D 7. Organization and work of the cataloguing service	30
D 8. Audio-visual documents	45
D 9. Official documents	45
D10. Books and reading for children	30
D11. Books and reading for adolescents	30
D12. Books and reading for adults	30
D13. Indexing	15
D14. Electronic systems for processing of information in libraries	30

Type of training	Academic study in Library Science. Information Science is offered as part of the Library Science curriculum
Conditions of admission	B.A. or acceptable higher university degree
Are foreign participants allowed	Yes
Conditions of admission	Knowledge of French and English and graduation from a university
Duration of training	One or two years full-time
For what kind of work are the students being trained	Scientific and technical librarians, specialists in classification
Examinations	During the education and final written examinations from most subjects listed in the programme

Degrees or other qualifications granted	B.Bibl. (Baccalauréat en Bibliothéconomie)
Language of lectures	French
Tuition fees	$430 per year
Financial aid for trainees	4 scholarships of $ 400 to $ 450 each
Number of trainees	53 graduates (1967/68)

OTTAWA

University of Ottawa, Library School,
Ottawa 2, Ontario

Director: A.-M. Morisset, O.M.I., B.A., L.D.C., B.L.S. (Col.), M.L.S.

Year of foundation of the School: 1938

POST-GRADUATE

The Library school offers two programmes: one leading to the Bachelor of Library Science degree; the other to the Master of Library Science degree.

Programme

A. leading to the B.L.S. degree

1. Introduction to library science
2. Cataloguing and classification
3. Reference work and bibliography
4. History of books, printing and libraries
5. Communication and the library
6. Technical services
7. Bibliographical and research methods
8. School, children's and youth libraries
9. College and university libraries
10. Hospital libraries
11. Special libraries
12. Literature of the humanities
13. Literature of the social sciences
14. Literature of the sciences
15. Library organization and administration
16. Book selection and reading interests
17. Serials and government publications

Practical work:
- Each student is required to undertake supervised library work for one hour a week
- Each student taking the full-time course is required:
  - a) to have acquired approximately four weeks of supervised library experience before the end of the second semester
  - b) to have completed during the second semester two continuous weeks of supervised practice work in a library before graduation

B. leading to the M.L.S. degree

1. Palaeography E[+]
2. Archives E
3. Biblio-psychology and biblio-sociology
4. Cultural development of Canada
5. Research in librarianship E
6. Documentation E
   Aims and procedures, indexing, abstracting, information of bibliographical work, utilization of recorded knowledge

Type of training	Academic study in library science
Conditions of admission	A. - Bachelor's degree or its equivalent, obtained from a recognized university or college - Each candidate must submit to an interview with a representative of the School B. - Master of Library Science - a Bachelor of Library Science is a prerequisite - Some knowledge of Latin and other languages is desirable
Are foreign participants allowed	Yes
Conditions of admission	Same as Canadian students but candidates whose mother language is neither English nor French must undergo special tests
Duration of training	B.L.S. - two semesters M.L.S. - one year
For what kind of work are the students being trained	Librarians, special librarians, documentalists
Examinations	B.L.S. - semester and final written examination M.L.S. - Master's thesis
Degrees or other qualifications granted	Bachelor of Library Science, Master of Library Science Degree requirements: a) Requirements for degrees are based upon the point or credit system of describing the student's course work. A credit is allotted to each semester-hour of lecturing (15 one-hour lectures) b) The Bachelor of Library Science degree requires 30 credits and

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[+] Two elective courses are required. These are indicated by the letter E following the course number completion of the necessary practice work

c) The Master of Library Science degree requires 36 credits including the 30 taken for the Bachelor of Library Science degree. In addition the candidate must present a thesis

d) The time limit allowed for part-time students for the completion of requirements for the degree of Bachelor of Library Science is five years

e) The time limit allowed for the completion of requirements for the degree of Master of Library Science is three years

Language of lectures

French and English

Tuition fees

For B.L.S. - $ 518,
for M.L.S. - $ 418
Direction of theses $ 100

Financial aid for trainees

Scholarships and Bursaries:

a) The Grolier Society of Canada Ltd. - $ 100

b) Les Editions Françaises Inc. (Larousse) - $ 300 (three bursaries of $ 100 each)

c) Luxfer Ltd., London, England - $ 100

d) Morrison-Lamothe Bakery Ltd. - $ 100

e) Ontario Department of Education Provincial and Dominion-Provincial Student-Aid Bursaries, Type B. Maximum value $ 500. Apply after registration in September

f) Government of the Province of Quebec Bursaries. Maximum $ 500, renewable for candidates resident in the Province of Quebec for 5 years (60% grant, 40% loan). Applications concerning the bursaries are obtainable at: Le Service de l'Aide à la Jeunesse, Section des bourses, 30 rue Saint-Louis, Quebec, P.Q. Application for renewal should reach the Office of the Registrar before August 15

TORONTO

University of Toronto, Library School, Ontario College of Education,
371 Bloor Street West, Toronto 5

Director: Prof. B. Bassam

Year of foundation of the School: 1928

POST-GRADUATE

Course leading to the degree of Bachelor of Library Science

Programme

Required subjects
1. Library collections
2. Library collections in special fields
3. Bibliography and reference materials
4. History of books and printing
5. Cataloguing
6. Classification
7. Library records and methods of procedure
8. Contact with readers and advisory services
9. Library service
10. Library administration

Elective subjects
1. Literature for boys and girls
2. Story telling
3. Literature for young people
4. Modern fiction
5. Bibliography
6. Advanced cataloguing
7. Advanced classification
8. Libraries for boys and girls
9. College and university libraries
10. Public libraries
11. School libraries
12. Special libraries

Course leading to the degree of Master of Library Science

Programme

1. Bibliography and reference service: books and materials
2. Bibliography and reference service: methods
3. Cataloguing and classification
4. College and university library collections
5. College and university library administration
6. Public library collections
7. Public library administration
8. Special libraries
9. Government publications
10. History of books and printing

11. Social science literature
12. Methods of research
13. Research project

Type of training	Graduate library school
Conditions of admission	1) A candidate for the degree of B.L.S. must be a graduate of an approved university 2) A candidate for the degree of M.L.S. must hold the degree of B.L.S. from this University, or its equivalent from an accredited library school A reading knowledge of one modern language is required
Duration of training	1) B.L.S. - one year 2) M.L.S. - one year
For what kind of work are the students being trained	University, school, business, science, technical, government, hospital, newspaper and public librarians
Examinations	During the studies and final examinations. A research project must be presented for the M.L.S. degree
Degrees or other qualifications granted	Master of Library Science (M.L.S.)
Language of lectures	English
Tuition fees	B.L.S. - men $ 303, women $ 278 M.L.S. - men $ 475, women $ 455
Financial aid for trainees	Scholarships: 1) The Winifred G. Barnstead Scholarship 2) The Grolier Society of Canada Scholarship 3) The Anne Hume Bursary 4) The Ontario Federation of Home and School Associations 5) The Ontario Dept. of Education 6) The George H. Locke Memorial Scholarship

TORONTO

University of Toronto, School of Library Science,
167 College Street, Toronto 28, Ontario

Director: Prof. R.B. Land

Year of foundation of the School: 1928

POST-GRADUATE

Programme	hours/week
Bachelor of Library Science	
1. Bibliography and reference	3
2. Cataloguing and classification	3
3. Library collections in the humanities[+]	2
4. Library collections in the social sciences[+]	2
5. Library collections in science[+]	2
6. Organization of library materials[+]	2
7. The library and the computer[+]	2
8. Introduction to documentation[+]	2
9. Special libraries[+]	2
	20
Master of Library Science	
1. Bibliography and reference service: books and materials[+]	2
2. Cataloguing[+]	2
3. Subject analysis of library materials[+]	2
4. Documentation methods[+]	2
5. Automation of library processes[+]	2
6. Documentation theory[+]	2
7. Library systems[+]	2
8. Government publications[+]	2
9. Research collections in Canadiana[+]	2
10. Literature of the social sciences[+]	2
11. Science information[+]	2
12. Librarianship in the health sciences[+]	2
	24

Type of training	Academic study in library science. Information science is offered as part of the library science curriculum
Conditions of admission	- For Bachelor of Library Science programme: graduation with satisfactory standing from a regular university degree course approved as to entrance requirements and course content - For the Master of Library Science programme: B.L.S. degree from the University of Toronto with at least second-class standing or its equivalent from an approved library school

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[+] = Half-year courses

Are foreign participants allowed	A limited number of foreign students is accepted
Conditions of admission	Reference is given to those who have high academic standing and who do not have facilities for library education in their own countries
Duration of training	- B.L.S. programme: full-time, Sept.-May (35 weeks) (no part-time students) - M.L.S. programme: full-time, Sept.-April (30 weeks) (part-time students accepted)
For what kind of work are the students being trained	Subject information specialists, specialists in classification, cataloguing, reference, bibliography and the mechanization of library processes and procedures. Special librarians including scientific and technical librarians
Examinations	Written examinations (depends on individual course) and final examinations for half-year courses
Degrees or other qualifications granted	- Bachelor of Library Science degree - Master of Library Science degree
Language of lectures	English
Tuition fees	- B.L.S. programme: men - $ 303, women - $ 278 - M.L.S. programme: men - $ 478, women $ 458
Financial aid for trainees	Various scholarships, fellowships, and government loans and bursaries are available for Canadian students and landed immigrants. Financial assistance is not generally available to newly-admitted overseas students. Foreign students should be prepared to meet their expenses from their own resources
Number of graduates	1967/68: - B.L.S. graduates 191 - M.L.S. graduates 8 199

VANCOUVER

The University of British Columbia, School of Librarianship,
Vancouver 8

Director: Dr. S. Rothstein

Year of foundation of the School: 1961

POST-GRADUATE

Programme

Courses immediately relevant to documentalists and information workers include:

	hours/week
1. Introduction to automation	1
2. Cataloguing and classification	4
3. Reference and bibliography	3
4. Advanced reference and bibliography	3
5. Advanced cataloguing and classification	3
6. Literature and bibliography of science and technology	3
7. Literature and bibliography of the humanities and social sciences	3
8. Technical services in libraries	3
9. Special libraries	3

Type of training	Academic study in library science. Information science is offered as part of library science curriculum. Courses are offered in the School of Librarianship, a department of the Faculty of Arts
Conditions of admission	Graduation from a recognized university with second class standing and two years of a foreign language at the university level
Are foreign participants allowed	Yes
Conditions of admission	Same as for Canadian students
Duration of training	One academic year
For what kind of work are the students being trained	Scientific and technical librarians
Examinations	Written final examinations in all courses taken
Degrees or other qualifications granted	Bachelor of Library Science
Language of lectures	English
Tuition fees	$ 503/year

Financial aid for trainees	Government of British Columbia scholarships, Government bursaries, Canada student loans, National Research Council of Canada fellowships, Civil Service Commission fellowships
Number of trainees	1967/68 - 84 degrees awarded
Other data	Occasional workshops and seminars for working librarians have been offered. No more than one or two per year

Plan for other types of course in 1969-1970:

Expansion to a two-year curriculum leading to the Master of Library Science degree (M.L.S.) is in the planning stages, with a target date of 1970/71

COLOMBIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

MEDELLIN

Escuela Interamericana de Bibliotecologia, Universidad de Antioquia (Interamerican School of Library Science, University of Antioquia), Medellin

Director: L. Floren

Year of foundation: 1956

GRADUATE

Programme

1. Documentation and its aims
2. Scope of documentation
   a) special documentation
   b) the library
   c) documentational, administrative and historical archives
   d) museums
   e) bibliographies and non-bibliographical material
   f) encyclopedias
3. Methods of documentation
4. Documentation centres
5. History of documentation
   a) origin
   b) documentation in Europe and North America
   c) documentation in Latin America
   d) documentation in Colombia
6. International organizations of documentation
   a) FID
   b) IFLA
7. The document, its kinds and forms
8. Classification and document retrieval
9. Bibliographical service and writing of information reports
   a) kinds of indexes
   b) information publications
   c) translations
   d) information service
10. Reproduction of documents and their production
    a) typography
    b) secondary documents
    c) other methods
11. Mechanical selection
    a) perforated cards
    b) cards with perforated edges
    c) other methods
12. National bibliography and information centres

13. Sources of documentation in Latin America
    a) present state
    b) means of utilization
14. Stages of work in documentation
15. Teamwork
    a) organization
    b) work standards

Type of training	Academic school of library science; documentation is included in the curriculum
Conditions of admission	A secondary school leaving certificate
Are foreign participants allowed	Yes, from Chile, Paraguay, Honduras, Bolivia, Venezuela, Equador
Duration of training	Three years
For what kind of work are the students being trained	Librarians and documentalists
Examinations	Competitive entrance examination and final Master of Arts examination
Degrees or other qualifications granted	Licenciados en Bibliotecologia
Language of lectures	Spanish
Number of trainees	About 20 persons per year
Other data	The School also organizes 4-month courses for librarians of agricultural and medical libraries as continuation training courses

COSTA RICA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

La Biblioteca Conmemorativa Orton del IICA, in Turrialba offers each year course for persons working in the libraries of national institutions as for example, Ministry of Agriculture, Faculty of Agricultural Sciences, experimental stations of other agricultural institutes.

Director: O. Lenvayova

Duration of training	6 months
Number of trainees	8 per annum

CUBA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

HAVANA

Instituto de Documentación e Información Científica y Técnica (Institute of Documentation and Scientific and Technical Information), subordinated to the Cuban Academy of Sciences, Havana

The Institute of Documentation (IDICT) organized a series of conferences in 1964 for the personnel of information centres. The subjects covered by the lectures were as follows:

1. Information and documentation, their significance to the development of science and technology
2. Actual problems of the methodology of information and documentation
3. Primary sources of information:
   scientific and technical literature
4. Secondary sources of information:
   abstracts journals

ADDITIONAL INFORMATION

The IDICT and the "José Martí" National Library organized training courses in 1965 for the personnel of information services and librarians of special libraries.

The opening of a Library School at the University of Havana is also being planned, at which lectures are to be held on documentation and information.

CZECHOSLOVAKIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BRATISLAVA

Universita J.A. Komenského - Katedra knihovníctva a vedeckých informácií (Comenius University - Chair of librarianship and scientific information),
Gondova 2, Bratislava

Director: Š. Pasiar, Ph.D. (Associate Professor)

Year of foundation: 1967
POST-GRADUATE

Programme	Term	
	Winter hours	Summer hours
First year		
1. Scientific information in modern society	6	
2. Introduction to systems theory - mathematical logic	6	6
3. Organization of science and scientific research	6	
4. Technical development and the use of scientific knowledge		6
5. Systems of libraries and information centres in the ČSSR and abroad	6	6
6. Establishment and organization of information collection		6
7. Bibliography	6	
8. Information analysis	6	
9. Classification of information		6
10. Fundamentals of computer engineering and programming		6
11. Marxist philosophy (compulsory only for graduates who graduated before 1968)	6	
12. Political economy		6
Second year		
1. Mechanization aids in scientific, technical and economic information	6	6
2. Practical course in the use of mechanization aids in scientific, technical and economic information	6	6
3. Establishment of mechanized information holdings (files)	6	
4. Investigation of information; processing of results		6
5. Theory of information systems	6	6
6. Psychology and sociology in scientific, technical and economic information	6	
7. Scientific and technical liaison work	6	

Optional subjects (the student is obliged to take at least two)

	Winter hours
a) creation of a special terminology	6
b) Scientific and technical publications - rules of editing	6
c) Inventions and patents	6
d) Technical standards	6
e) Audio-visual devices and methods of their application in scientific, technical and economic information	6
f) Reproduction techniques	6
g) Scientific information in social services	6
h) Scientific information in agriculture	6

Type of training	Post-graduate extra-mural study
Conditions of admission	The course is intended for graduates in other branches than librarianship. Previous activity in the field of scientific information is required
Are foreign participants allowed	No
Duration of training	Two years (four terms)
For what kind of work are the students being trained	Information specialists and technical librarians
Examinations	During the training and final
Language of lectures	Slovak
Number of trainees	30
Other data	Besides post-graduate studies at the Charles University in Prague, Chair of librarianship and scientific information, and the Comenius University in Bratislava, Chair of librarianship and scientific information, lectures on information science are also included in the programmes of full-length five-year courses of librarianship, such as "Theory and history of bibliography of scientific information" and "Theory of scientific information" (total 30 hours with a final examination after the third term)

BRATISLAVA

Střední Knihovnická Škola (School of Librarianship),
Bratislava

Year of foundation: 1966/67

NON-GRADUATE

Programme	Number of hours per week	
	1st year	2nd year
1. Elements of Marxism-Leninism	3	3
2. Russian	2	2
3. English	4	4
4. Third modern language	4	4
5. Librarianship	3	3
6. Bibliography	3	3
7. Organization of book collections and catalogues	3	3
8. Economics and organization in special areas	3	3
9. Elements of production processes	4	4
10. Practical training in a library	3	3
11. Office work techniques	2	2
12. Physical training	2	1

Optional
- Latin
- Conversation in a modern language

Practical training course
- 1st year: 4 weeks in a scientific library
- 2nd year: 4 weeks in special libraries and information centres; 4 weeks of vacation course in scientific and special libraries

Compulsory
- Librarianship, Bibliography, Economics and organization in special areas

Optional
- Organization of book collections and catalogues
- Elements in production processes

Type of training	School of Librarianship including courses in technical and economic information
Conditions of admission	Secondary or technical school certificate Entrance examination in Slovak and mathematics
Are foreign participants allowed	No
Duration of training	Two years. Full-time course
For what kind of work are the students being trained	Information workers
Examinations	During the training and final
Language of lectures	Slovak
Number of trainees	30

PRAGUE

Karlova Universita - Fakulta společenských věd a publicistiky, Katedra knihovnictví a vědeckých informací (Charles University - The Faculty of social sciences and journalism, Chair of librarianship and scientific information),
Celetná 20, Praha 1

Director: J. Kábrt, Ph. D. (Associate professor)

Year of foundation: 1966

POST-GRADUATE

Programme	Term	
	Winter hours	Summer hours
First year		
1. Introduction to the study of information science	6	
2. Cataloguing	12	
3. Classification and indexing	12	
4. Establishment and organization of information holdings	6	6
5. General and specialized bibliography	12	6
6. Principles of mechanization and automation		18
7. Elementary seminar	6	6
8. Principles of information theory		12
9. Selected chapters from psychology, pedagogics and pedagogical psychology		12
10. Science and society		12
Second year		
1. Statistical methods in information work	6	
2. Technical writing and analytical reports	6	
3. Methods of literature searching	6	
4. System of libraries and information centres, their co-operation and management	12	
5. Linguistic and semantic problems in automated and mechanized information systems	12	
6. Patents, trade marks, registered designs, copyright law	6	
7. Selected chapters from sociology	12	
8. Organization and management in science, technology and production	6	
9. User psychology and sociology. Design and programming of mechanized and automated information systems	18	
10. Mechanized and automated information systems	12	
11. Publishing and editing	12	
12. Marketing	6	
13. Systems engineering	6	
14. History of librarianship	6	

	hours Winter	 Summer
15. History of bibliography	6	
16. Library science	6	
17. Cataloguing of old prints	6	
Optional seminar	6	6

Type of training	Post-graduate extra-mural study
Conditions of admission	The course is intended for graduates in other branches than librarianship Previous activity in the field of scientific information is required
Are foreign participants allowed	No
Duration of training	Two years (four terms)
For what kind of work are the students being trained	Information specialists and technical librarians
Examinations	During the training and final
Language of lectures	Czech
Number of trainees	30

PRAGUE

Institut Prumyslové Právní Ochrany při Úřadu pro Patenty a Vynálezy (Institute for the Industry Property at the Office for Patents and Inventions),
U pujčovny 10, Praha 1

Director: O. Koplík

Year of foundation of the courses: 1963

POST-GRADUATE

Programme	hours
First term	
1. Introduction to the study	2
2. Principles of logic	16
3. History of the juridical protection of inventions (1st part)	12
4. Elementary concepts of civil law (1st part)	10
5. Elements of the theory of state and legislation	16
6. Methods of creative technical work and the theory of invention (1st part)	16
7. Practical exercise in patent protection	8

Second term

	hours
1. Principles of logic	16
2. History of the juridical protection of inventions (2nd part)	12
3. Elementary concepts of civil law (2nd part)	10
4. Methods of creative technical work and the theory of invention (2nd part)	20
5. Scientific, technical and economic information (1st part)	14
6. Practical exercise in patent protection	8

Third term

1. Scientific, technical and economic information (2nd part)	12
2. Explanation of Czechoslovak regulations on discoveries, inventions and innovation (1st part)	18
3. Explanation of Czechoslovak regulations on industrial design, trade marks, marks of origin and unfair competition	16
4. Economics, organization and management of industry in Czechoslovakia	14
5. Development of science and technology in Czechoslovakia	12
6. Practical exercise in patent protection	8

Fourth term

1. Methods of patent searching	12
2. Economics, organization and management of industry in Czechoslovakia	12
3. Development of science and technology in Czechoslovakia	12
4. Explanations of Czechoslovak regulations on discoveries, inventions and innovations	16
5. Explanation of foreign and international regulations on industrial design, trade marks, marks of origin and unfair competition	20
6. Practical exercise in patent protection	8

Fifth term

1. Explanation of Czechoslovak regulations on discoveries, inventions and innovation	10
2. Interests and politics in the field of industrial property	10
3. Patent protection of invention in capitalist countries	50
4. Practical exercise in patent protection	10

Sixth term

1. Interests and politics in the field of industrial property	12
2. Patent protection of inventions in capitalist countries	38

	hours
3. Comparative law concerning discoveries, inventions and innovation in socialist countries	12
4. International patent law	14
5. Practical exercise in patent protection	4

Type of training	Course
Conditions of admission	Higher school certificate and practical experience
Are foreign participants allowed	Yes
Conditions of admission	Higher school certificate and practical experience
Duration of training	Six terms (480 hours), extra-mural
For what kind of work are the students being trained	Specialists in information science
Examinations	During the training and final
Degrees or other qualifications granted	Successful students obtain a special certificate
Language of lectures	Czech
Number of trainees	The number of students in each class does not exceed 35
Other data	At the moment the institute runs classes in Prague, Přerov, Bratislava and Košice

PRAGUE

Střední Knihovnická Škola (School of Librarianship),
Nad lesem 185, Praha 4 - Hodkovičky

Director: J. Mucha

Year of foundation: 1969/70

NON-GRADUATE

Programme	Number of hours per week	
	1st year	2nd year
1. Development of science and technology	2	
2. Organization of scientific, technical and economic information	2	2
3. Organization of information sources	6	5
4. Bibliography, documentation and literature searching	2	5
5. Writing technical and analytical reports		2
6. Rationalization of information processes	4	3
7. Practical training	4	4

	Number of hours per week 1st year	 2nd year
8. Typewriting	2	2
9. Foreign language I[+]	4	4
10. Foreign language II[+]	4	4
11. Physical training	2	2

[+] choice of English, French and German

Optional subjects
- Conversation in modern language
- Modern language
- Games

Type of training	School of librarianship including courses in scientific, technical and economic information
Conditions of admission	Entrance examination in Czech and secondary school certificate
Are foreign participants allowed	No
Duration of training	Two years. Full-time course
For what kind of work are the students being trained	Information workers
Examinations	During the training and final. Final examination: - Compulsory: Organization of information sources, Bibliography, Documentation and Literature searching - Optional: Organization of scientific, technical and economic information; Rationalization of information processes The students have to submit a paper in Documentation and Literature searching; the paper should contain: 1) A literature search on a given theme (bibliography) 2) Description of the methods of literature searching (bibliography)
Language of lectures	Czech
Number of trainees	30

PRAGUE

Československá Akademie Věd, Ústředí Vědeckých Informací (Czechoslovak Academy of Sciences, Centre of Scientific Information),
Balbínova 30, Praha 2

Dr. J. Toman

Year of foundation of the courses: 1964

Programme

Course No. 1A: Methods and techniques in scientific information work

	hours
1. Organization of the Czechoslovak Academy of Sciences	1
2. Organization of libraries and scientific information in Czechoslovakia	1
3. Network of the departments of scientific information in the Academy and the Main Library of the Czechoslovak Academy of Sciences	2
4. Organization of information systems	4
5. Bibliography	5
6. Encyclopaedias, dictionaries, annuals (including practical training)	4
7. Bibliography of periodicals (including practical training)	2
8. Sources of information in the humanities	4
9. Book bibliography (including practical training)	2
10. Work in special libraries (including practical training)	9
11. Final session and evaluation of the first part of the course	2

Course No. 1B: Methods and techniques in scientific information work

	hours
1. Cataloguing. Cataloguing rules	4
2. Documentation of sources of information	5
3. Organization techniques	4
4. Classification of information	8
5. Copying methods	5
6. Literature searching	8
7. Reprographic methods	3
8. Final session and evaluation of the course	2

Type of training	Courses
Conditions of admission	Higher school certificate and practical experience in information work
Are foreign participants allowed	No

Duration of training	The courses are in two five-day sessions with a fortnights break between the two sessions
For what kind of work are the students being trained	Information workers and librarians
Examinations	During the training and final
Language of lectures	Czech
Number of trainees	30

PRAGUE

Strojírenský Informační Ústav (Engineering Information Institute),
Jungmannova ul., Praha 1

Director: J. Kugler, Dipl. Eng.

Year of foundation of the courses: 1961

Programme

First degree course

1. Organization of the Czechoslovak industry
2. Organization of scientific, technical and economic information in heavy industry
3. History of librarianship in Czechoslovakia
4. Types and evaluation of sources of information
5. Acquisition of information holdings
6. Handling of information holdings (library type handling)
7. Introduction to classification and Universal Decimal Classification
8. Handling of information holdings (cataloguing of documents)
9. Work with the user of information
10. Organization of work in departments of technical and economic information
11. Equipment for departments of scientific, technical and economic information
12. Final discussion

Total number of hours: 42

Second degree course

1. Tasks of the development of science and technology
2. Elements of organization of technical and economic information under the Ministry of Heavy Industry .
3. Organization of scientific and economic information abroad
4. Experiences in the organization of scientific, technical and economic information in some foreign countries
5. Systems of the classification of information
6. Literature searching, writing technical and analytical reports
7. Patents and standards as sources of information
8. Industrial technical liaison work
9. Exploitation of economic propaganda

10. Publishing activities
11. Reproduction devices for scientific, technical and economic information
12. Mechanization and automation of scientific, technical and economic information
13. Final discussion

Total number of hours: 44

Third degree course

1. Tasks of the information network system under the Ministry of Heavy Industry
2. Concept of the Czechoslovak system of scientific, technical and economic information
3. Authors and copyright law
4. Scientific, technical and economic information and technical development
5. Authors and copyright law in scientific, technical and economic information
6. Reproduction techniques
7. Marketing
8. Acquisition of non-commercial literature
9. Theory of scientific and technical information
10. Writing technical reports
11. Orthographic and morphological subtleties
12. Style in the Czech language
13. Management information
14. Effectiveness of information in regard to the user
15. The state of art of Universal Decimal Classification
16. Theory of thesauri
17. Psychology of management
18. Computer-type devices
19. Psychology in scientific, technical and economic information
20. Punched cards in the special information centre of the State Institute of Material and Technology
21. Dissemination of scientitic and technical information
22. The KWIC System used in the Research Institute of Ferrous Metallurgy
23. Programming for computers
24. Explanation of the ARDIS system
25. Visits
26. Final discussion and evaluation of the course

Total number of hours: 200

Type of training	Courses of scientific, technical and economic information
Conditions of admission	Higher school certificate and practical experience in information work
Are foreign participants allowed	No

Duration of training	First and third level courses in scientific, technical and economic information, organized in five 5-day sessions at monthly intervals
For what kind of work are the students being trained	Information workers
Examinations	During the training and final
Degrees or other qualifications granted	Certificate
Language of lectures	Czech
Number of trainees	90

PRAGUE

Ústředí Vědeckých, Technických a Ekonomických Informací, Státni Technická Knihovna (Central Office of Scientific, Technical and Economic Information, State Technical Library), Klementinum, Praha 1

Director: A. Derfl, Ph.D.

Year of foundation of the course: 1968

Programme	hours
1. Development of science and technology and principles of organization and economics of the Czechoslovak industry	5
2. Organization of scientific, technical and economic information in ČSSR and abroad	10
3. Organization of the Central Office of Scientific, Technical and Economic Information	5
4. Sources of information, their types and nature	5
5. Acquisition of information	5
6. Registration, establishment and storage of information holdings and their protection. Revision of library collections	5
7. Descriptive cataloguing of information	10
8. Classification of information	30
9. Elements of bibliography	5
10. Methodology and techniques of documentation work	5
11. Use of sources of information	5
12. Patent and standard literature	15
13. Methods and techniques of literature searching	10
14. Writing technical reports and analytical activities	5
15. Marketing	5
16. Internal editorial activities of information centres	5
17. Copyright law in scientific, technical and economic information	5

	hours
18. Use of reproduction techniques in scientific, technical and economic information	10
19. Use of computers in scientific, technical and economic information	15
20. Visits	25
Total	185

The visits are intended to cover:

1) the overall activity in scientific, technical and economic information:	The Centre of Scientific, Technical and Economic Information - State Technical Library - The Specialized Branch of Centre The specialized field information centre
2) patent documentation:	The Office for patents and inventions or selected patent information centres
3) reproduction techniques	
4) mechanization and automation	

Type of training	Course in information science
Conditions of admission	Higher school certificate and practical experience in information work
Are foreign participants allowed	No
Duration of training	One year (185 hours)
For what kind of work are the students being trained	Information workers
Examinations	During the training and final
Language of lectures	Czech
Number of trainees	50
Other data	State Technical Libraries in Plzeň, Liberec, Hradec Králové, České Budějovice, Brno and Ostrava organize courses with syllabuses provided by the Central Office of Scientific, Technical and Economic Information - State Technical Library; these courses on scientific, technical and economic information are for information workers in their respective fields

Plans for other type of courses in 1969-70:

The Central Office for Scientific, Technical and Economic Information (State Technical Library) also prepared a proposal for a syllabus for a three-months course for workers in technical libraries:

Programme	hours
1. Organization of librarianship and scientific information in ČSSR	5
2. Structure of holdings in technical libraries	5
3. Supplementing technical libraries	5
4. Registration of various types of technical literature and storage of the holdings	5
5. Descriptive cataloguing	10
6. Revisions of book collections	10
7. Reader relations and circulation systems	5
8. Advertising technical literature	4
9. Planning in technical libraries	4
Total	58
Visits:	
- State Technical Library	4
- Specialized branch or field centre of scientific, technical and economic information	4

Specialized advanced courses are organized for holders of the general certificate who have already passed the one-year course (in exceptional cases also for other suitable workers in information work). They will be specialized:

a) according to professions (technical analysts, documentalists)
b) according to the subject.

These courses are to have a special syllabus prepared for each individual course. They can be organized either as extra-mural studies, as a series of lectures or intensive course. They will always meet the needs of information practice and aim at topical problems. The content of the courses of this type, their organization and the lectures will be chosen individually for each course.

DENMARK

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

COPENHAGEN

Dansk Teknisk Litteraturselskab (The Danish Society for Technical Literature),
Øster Voldgade 10, Copenhagen K

Course in scientific and technical documentation

Programme

1. Library service in industrial enterprises and institutions
2. Bibliography and technique of bibliographical searching subdivided into:
   a) Mathematics, physics
   b) Chemistry, chemical technology
   c) Mechanical technology
   d) Electronics, electrical technology
   e) Materials handling
   f) Biology, bio-technology
   g) Medicine, pharmacology, veterinary science
   h) Agriculture
   i) Economics, administration
3. Information and documentation. Systems of information
4. Storage and retrieval of information
5. Communication of information by such means as report writing, reprography, oral communication
6. Visiting information centre
7. Study tour of a European country with advanced information centres

Type of training	Course
Conditions of admission	Academic degree in various fields of study 3-5 years professional practice Knowledge of two foreign languages
Duration of training	240 hours for a period of 9 months Lectures and exercises two full days every three weeks
For what kind of work are the students being trained	Documentalists
Examinations	A compulsory final examination
Degrees or other qualifications granted	A diploma
Language of lectures	Danish
Tuition fees	3500 DKr
Number of trainees	20 per year

COPENHAGEN

Denmark's Library School,
Birketinget 6, 2300 Copenhagen S

Course for industrial librarians and assistants

Programme

1. The purpose of a library and its place in an enterprise
2. Contents of library collections
3. Handling of the library material
4. Utilization of the library
5. Public libraries and documentation centres
6. Reference and information collections

Type of training	Instructive course
Conditions of admission	For staff members of industrial and institutional libraries
Duration of training	90 hours for a period of 19 days
For what kind of work are the students being trained	Librarians of special libraries
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Danish
Tuition fees	250 Dkr
Number of trainees	Approx. 25 a year

FINLAND

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

HELSINKI

Suomen Kirjallisuuspalvelun Seura - Samfundet för Litteraturtjänst i Finland (The Finnish Association for Documentation),
Lönnrotinkatu 37, Helsinki

Courses are arranged to train documentalists

Type of training	a) Bibliography courses - with emphasis on theoretical and practical knowledge of bibliography, and b) Classification courses with emphasis on the use of the UDC
Duration of training	1-2 weeks
For what kind of work are the students being trained	Information service personnel and staff of technical and special libraries
Language of lectures	Finnish

ADDITIONAL INFORMATION

Finnish information service personnel also take part in the courses arranged by the Scandinavian Council for Applied Research.

FRANCE

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

PARIS

Ecole Nationale Supérieure de Bibliothécaires (National School of Librarianship),
2 rue Louvois, 75 Paris 2ème

Director: (Mlle) P. Salvan, 23, rue Leverrier, 75 Paris 6ème

Year of foundation of the course: 1964

POST-GRADUATE

Programme	hours
1. Documentation:	
a) Classification	30
b) Documentary reproduction	6
c) Information retrieval	15
d) Special subjects bibliography	20
2. Courses for librarians of university libraries	50
	121

Type of training	Courses in documentation as part of the curriculum
Conditions of admission	University degree or equivalent
Are foreign participants allowed	Yes
Conditions of admission	Same as for French students and knowledge of French
Duration of training	One year (full-time)
For what kind of work are the students being trained	Scientific librarians
Examinations	Oral and written from all subjects listed in the programme
Degrees or other qualifications granted	Diplôme Supérieur de Bibliothécaire
Language of lectures	French
Tuition fees	90 F.
Financial aid for trainees	Salary for French students to be appointed in State libraries (only for those who are admitted at the entrance examination)

Number of trainees	Number of graduates 1968: French students to be appointed in State libraries - 53 Other French students - 13 Foreign students - 13

PARIS

Institut National des Techniques de la Documentation (National Institute of Documentation Techniques),
292, rue St. Martin, 75 Paris 3ème

Director: P. Poindron

Year of foundation of the course: 1950

NON-GRADUATE

Programme

	hours
First year 1. Documentation techniques 2. Practical work in: a) classification of documents b) cataloguing c) abstracting, etc. 3. Visiting documentation centres	90
Second year 1. Technique of document searching 2. Use of documentation in: a) social-economic sciences b) applied sciences c) natural sciences 3. Practical work in abstracting 4. Visiting documentation centres	75
Total	165

Type of training	School of documentation techniques
Conditions of admission	- Leaving certificate of a secondary school (baccalauréat) or its equivalent - Entrance examination (except for candidates having a leaving certificate from a university) - at least 18 years old
Are foreign participants allowed	Yes
Conditions of admission	Same as for French students
Duration of training	Two years

For what kind of work are the students being trained	Information scientists, subject information specialists, specialists in the particular part of information processes, e.g. specialists in classification, abstracting, mechanization etc., scientific and technical librarians
Examinations	Entrance, during the course, and final
Degrees or other qualifications granted	A diploma
Language of lectures	French
Tuition fees	600 F. per year
Number of trainees	98 graduates in 1967

PARIS

Ecole de Bibliothécaires-Documentalistes (School of Librarians - Documentalists),
21, rue d'Assas, 75 Paris 6ème

Director: (Mme) M. Raffy

Year of foundation of the School: 1935

NON-GRADUATE

Course for librarians and documentalists

Programme

1. History of books and printing
2. History and administration of libraries
3. Cataloguing
4. Classification
5. Information and reference services:
   a) organization of materials for use
   b) photoreproduction of library materials
   c) selection of documents
6. Bibliography
7. General knowledge
8. Visits to libraries and modern special libraries

Practical work:
- During the first year of training students are engaged in the practical work in libraries 2 or 3 times a week
- Practical work in special libraries is compulsory during the second year

Type of training	School of Librarianship and Documentation

Conditions of admission	- Equivalent of degree of Baccalauréat or its equivalent - Entrance examination
Are foreign participants allowed	Yes
Conditions of admission	Same as for French students and a good knowledge of the French language
Duration of training	Two years (one year for graduates)
For what kind of work are the students being trained	Librarians, special librarians and documentalists
Examinations	Entrance, after first year of course and final
Degrees or other qualifications granted	Diplôme de l'Ecole
Language of lectures	French
Tuition fees	1500 F. per year
Number of trainees	30

Course for assistant librarians or documentalists

Year of foundation: 1967

Programme

1. Information, its evolution
2. Libraries and special libraries
3. Different types of documents
4. Technique of books and different types of documents
5. Bibliography
6. Cataloguing of different types of documents
7. Classification
8. Selection of documents
9. Organization:
   a) equipment of premises
   b) filing of documents, loan
   c) reprography
   d) microfilms and microcopies
10. Public relations
11. History of the book

Type of training	Evening course (3 times a week)
Conditions of admission	Baccalauréat or equivalent and entrance examination
Duration of training	One year
Examinations	Entrance, after first year and final

Degrees or other qualifications granted	Diplôme de l'Ecole
Tuition fees	1500 F. per year
Number of trainees	30

PARIS

Union Française des Organismes de Documentation (UFOD) (French Union of Documentation Organizations),
16, rue Jules-Clartie, 75 Paris 16ème

Director: J. de Laclémandière and (Mme) F. Cestac

Year of foundation of the courses: 1944

A. Training course

Programme

First year

UFOD's teaching is based on five functions of documentation:

1. Detection
   Characteristics of the times we live in. The limits of information - The concept of information - Group communication - Creativity and research, etc.
2. Identification
   Image - Reading - The notion of "document" - Cataloguing - Filing, etc.
3. Abstracting
   Indexing - Abstracting - Data synthesis - Linguistics - Translation
4. Dissemination
   Temporary communication - Circulation of documents - Loans - Exchanges - Permanent communication - Operational survey of the users' needs - Reprography - Printing techniques, etc.
5. Storage and retrieval
   Classification - Retrieval - Computer technology - Storage - Human engineering - Documentation sciences - Criteria of documentary efficiency

In 60 lessons, totalling 6400 pages of mimeographed text with 335 tables, 1340 figures and 5430 bibliographical references, the above points are studied. All topics are connected with studies and practical exercises which constitute the real and positive elements of a dialogue between the students and the school management.

Type of training	Training course
Conditions of admission	No certificate is required (though the baccalauréat level is necessary), but a knowledge of foreign languages is obligatory
Are foreign participants allowed	Yes

Conditions of admission	Good knowledge of French language
Duration of training	1. Paris oral courses: two semesters per year including: a) three times a week for eight months b) three weeks "on the job" period organized in member firms of UFOD c) visits to documentation centres 2. Correspondence courses: two semesters per year including: a) studies and practical exercises b) a ten-days period at the Cercle Culturel de Royaumont in the UFOD Library
For what kind of work are the students being trained	Information scientists, subject information specialists, specialists in the particular part of information processes, e.g.: in classification, in abstracting, in mechanization, etc. In principle, courses are for students or people already working in documentation centres, who wish to improve their knowledge of documentation techniques
Examinations	Final and selective examination as a condition of receiving a degree in documentation
Degrees or other qualifications granted	Brevet de Documentation
Language of lectures	French
Tuition fees	1. Paris oral courses: 1800 F. per semester 2. Correspondence courses: 1800 F. (including the ten-days stay in (Royaumont)
Number of trainees	350 for two semesters per year including the Paris courses and correspondence courses

Second year

Advanced studies in information science

1. Behavioral and social sciences
   a) psychology (individual and group behaviour)
   b) psychotechnics
   c) sociology

2. Information technology
   Computers:
   - applications
   - programming
   - mathematics of computation
   - design and construction
   - analogue computers
3. Graphical arts
   a) image
   b) typography
   c) advertising
   d) semiotics - semiology

Type of training	Training (advanced level)
Conditions of admission	Graduate - 1st year "Brevet de Documentation"
Are foreign participants allowed	Yes
Conditions of admission	Good knowledge of French language
Duration of training	One year - once a week (evening courses only)
Examinations	Final and selective examination as a condition of receiving a higher diploma in documentation
Degrees or other qualifications granted	A higher diploma in documentation
Language of lectures	French
Tuition fees	250 F.
Number of trainees	50 per year

B. Junior introductory course

Programme

1. Documentation and tasks of an assistant documentalist
2. Identification of documents
3. Classification:
   a) kinds of classification
   b) technique of classifying documents
4. Principles of selecting documents
5. Dissemination of documents
6. Reproduction of documents
7. Storage of documents
8. Sources of documentation
9. Visting documentation centres

Type of training	Continuation course including lectures and discussions after lectures and practical work in documentation

Conditions of admission	Employment in a documentation centre
Duration of training	Six days
For what kind of work are the students being trained	Employees who want to obtain or improve their knowledge of documentation
Language of lectures	French
Tuition fees	1000 F.
Number of trainees	30 per session (6 sessions per year)

C. Senior introductory course

Programme

1. Tasks and functions of a documentalist
2. Kinds of documents:
   a) primary
   b) secondary
3. Documentation as a science
4. Reading
5. Translations
6. Publishing techniques and reproduction of documents
7. Dissemination of documents
8. Storage, classification and selection of documents
9. Sources of information and documentation
10. Achievements in documentation in other countries
11. Visiting documentation centres

Type of training	Continuation course including lectures and discussions, and practical documentation work
Conditions of admission	Employment in a documentation centre
Duration of training	Six days: 4 days at the Cercle Culturel de Royaumont in the UFOD's Library; 2 days in Paris
For what kind of work are the students being trained	Senior personnel who wish to obtain or improve their knowledge of documentation
Language of lectures	French
Tuition fees	1200 F.
Number of trainees	25 per session (6 sessions per year)

SPECIAL

D. Special course for "Documentation Secretaries"

Programme

The Documentation Secretary: his functions

1. Mail - identification - translation - analysis - answer

2. Telephone - telex
3. Reception - public relations - visitors - suppliers
4. Data integration
5. Work planning
6. Meetings - conferences - seminars - congresses, etc.
7. Travel organization
8. Writing techniques - administrative, commercial - style - dictating - machines, etc.
9. Filming techniques - chronological - alphabetical - alphanumerical - geographical filing
10. Filing equipment

Type of training	Special course including lectures and discussions, and practical work in a documentation secretariat office
Conditions of admission	Employment in a company
Duration of training	Five days
For what kind of work are the students being trained	Secretaries - Administrative employees desirous to harmonize their knowledge of secretarial techniques with documentation techniques
Tuition fees	900 F.
Number of trainees	25 per session (6 sessions per year)

SPECIAL

E. Special course "Dissemination of documentation"

Programme

1. The communication of documents: consultation, loans
2. Users' behaviour: psychological aspects of information use - various aspects of scientific and technical dissemination
3. Products, materials display: exhibitions - fairs
4. Lending of periodicals and other documents
5. Circulation of periodicals
6. Integrated circulation: reception - identification - analysis - dissemination - storage of documents
7. Writing machines: mechanical - electronic devices
8. Duplicating machines
9. Typography
10. Photography
11. Microcopying
12. Sound recording and transmission of documents

Type of training	Special course including lectures and discussions, and practical work in dissemination techniques

Conditions of admission	Employment in a documentation centre or service
Duration of training	Five days
For what kind of work are the students being trained	Managers or employees desirous to improve their knowledge of the methods and means for disseminating documentation and information
Tuition fees	900 F.
Number of trainees	30 per session (6 sessions per year)

SPECIAL

F. Special course "Graphical design"

Programme

1. The notion of "image" - images and signs
2. Tools: pencils, pens, paint-brushes, drawing-pens, etc.
3. Geometrical tracing: linear, logarithmic scales, etc.
4. Graphical design: for an exhibition, a series, a book etc.; different types of diagram
5. Nomograms
6. Statistical analysis: Student's law, Poisson's law, Pearson's law, etc.
7. Matrixes, graphs, trees, sociograms, etc.; semantic maps, stereographic grids
8. Mapping - time, movement, projections, etc.
9. Trade mark
10. Letter: lay-out, graphical art, symbols, writing and drawing standards
11. The role of graphical images in the field of documentation, advertising, packaging, public relations and information
12. Image transmission
13. Relationship between graphical images, photographic, cinematographic and television pictures and all systems of signs

Type of training	Special course including lectures and discussion, and practical work in graphical design
Conditions of admission	Employment in the design department of a firm
Duration of training	Five days
For what kind of work are the students being trained	Designers, desirous to utilize the "graphical function" in documentation techniques as a real means of dissemination
Tuition fees	900 F.
Number of trainees	20 per session (6 sessions per year)

TOULOUSE

Institut Universitaire de Technologie, le Département de Relations, Information, Université de Toulouse,
Avenue de Rangueil, 31 Toulouse 04

Director: Mr. Blaqiers

Year of foundation of the course: 1967

NON-GRADUATE

programme

First year	hrs/weekly
I. Professional subjects	
1. Archive and sources of documentation	2
2. Library science and bibliography	2
3. Introduction to the use of computers	2
4. Statistics	2
II. General subjects	
1. Sociology	1
2. Social psychology	2
3. History	1
4. Geography	1
5. Law and administration	1
6. Foreign languages	7
7. Statistics	2
III. Practical work	
1. Typing	4
2. Computers	4
	31

Second year	
I. Professional subjects	
1. Technique of audio-visual documentation	1
2. Application of computers in documentation	2
3. Special bibliography: 4 options: Physics and mathematics Biology and geology Social sciences Arts and Letters, philosophy	1
4. Cartography and diagrams	1
II. General subjects	
1. Chosen option (see above)	2
2. Foreign languages	3
III. Practical work	
1. Cartography and diagrams	2
2. Typing	3
3. Computers	3
4. Audio-visual documentation	2
5. Practical work in the documentation centres	10
	30

Type of training	Academic study in the field of documentation and information science
Conditions of admission	Baccalauréat and passing entrance examination
Duration of training	Two years, full-time
For what kind of work are the students being trained	Assistant-documentalists and documentalists
Examinations	Entrance, during the course and final examination
Degrees or other qualifications granted	Diplôme universitaire de technologie de documentation
Language of lectures	French
Tuition fees	Registration fee paid by any student of the university

ADDITIONAL INFORMATION

GRENOBLE

1. Université de Grenoble, Institut Polytechnique, Section Mathématiques Appliquées. Lectures on mechanized data processing are held by Prof. Peccaud during one semester in the third year of study.

NANCY

2. At the Faculté des Lettres et Sciences Humaines, Université de Nancy the courses on documentation are included in the programme of education. The Faculty grants a Diplôme de licence de documentation.

PARIS

3. Faculté des Lettres et Sciences Humaines, Centre des Sciences Humaines Appliquées, Université de Paris, 47, rue des Ecoles, 75 Paris 5ème, provides lectures on documentation.

4. Faculté des Lettres et Sciences Humaines, Laboratoire de Psychologie Sociale, 16-18, rue de la Sorbonne, 75 Paris 5ème. In the framework of the Laboratoire exists the Centre de Documentation. Prof. Pages conducts a seminar on psycholinguistic problems and the analysis of contents of documents for the scientists employed by the Centre. Seminars are held once a week and their aim is to improve the qualifications of the personnel.

5. Fondation Nationale des Sciences Politiques, 27, rue Saint Guillaume, 75 Paris 7ème, organizes every year a series of lectures and seminars in the field of information and documentation for candidates of Masters and Doctors degrees in the field of social and political sciences. Lectures are delivered by M. J. Meyriat (Director of the Centre de Documentation de la Fondation).

6. **Association Française des Documentalistes et Bibliothécaires Spécialisés** conducts since 1968 a series of lectures on informatics techniques in documentation services. The first series was devoted to an introduction into techniques of automatic documentation.

STRASBOURG

7. **Faculté des Lettres et Sciences Humaines, Section de Journalisme, Université de Strasbourg,** conducts lectures in the field of documentation (3 hours lectures are held every week during the first and second year of education).

GERMAN DEMOCRATIC REPUBLIC

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BERLIN

Humboldt Universität, Institut für Bibliothekswissenschaft und Wissenschaftliche Information (Humboldt University, Institute for Library Science and Information Science),
Universitätsstrasse 7, 108 Berlin

Head: Dr. J. Koblitz

Year of foundation of training in the field of Information Science: 1966

Studies in the field of information science and documentation are carried out together with studies in the given discipline, both lasting 5 years. Only a combination of social sciences and information and documentation sciences is possible at present. A combination of information and documentation studies with natural science and engineering studies is under consideration.

GRADUATE

Programme	hours
1st year	
1. Role of the social sciences in the GDR	15
2. Fundamental problems of information and documentation with special reference to the social sciences	45
3. Practical work	45
4. Planning, managing and organization of information in the GDR with special reference to the social sciences	15
5. Information needs and flow of information	15
6. Library science: functions and structures of libraries	15
7. Library science: theory and practice of acquisitioning	15
8. Methods of scientific work	15
9. Russian (readings of Russian writings)	60
2nd year	
1. Written and other sources of information	30
2. Library science: handling of collections, cataloguing	15
3. Introduction to bibliography	15
4. Practical work	30
5. Russian	30
Practical training - 6 weeks in a branch information centre	
3rd year	
1. Classification and other methods of identifying characteristics necessary for organizing collections and retrieval of information, building up of thesauri,	

other aids in this respect	45
Practical work	15
2. Information systems, methods and means	30
Practical work	15
3. Technique of arranging information, and technical means for manual or semi-manual storage and retrieval	30
Practical work	30
4. Library science: fundamental problems of library equipment	15
5. Economic problems in information and documentation	15
Practical work - 3 weeks in a special library, and 3 weeks in a scientific library	
Visits	

4th year

1. Planning information according to subjects	15
2. Science of science	45
3. Introduction to mechanical data processing	45
Practical work	15
4. Management, office management, small-scale printing	30
5. Information liaison work	15
6. Problems of training and further education of information and documentation workers	15
7. International co-operation in the field of information	15
8. Introduction to the history of information, documentation and modern librarianship	15
Practical work - 6 weeks at a computer centre	

5th year

1. Science of science	15
2. Introduction to the theory of communication	30
3. Outline of cybernetics and introduction to the theory of information	30
4. Publishing, book selling, copyright	15
5. Patents, innovations and rationalization	15
6. Standardization	15
7. Technique of translating	15

Type of training	Academic study in the field of information science, along with other academic study
Conditions of admission	Secondary school education
Are foreign participants allowed	No
Duration of training	5 years, 930 hours
For what kind of work are the students being trained	Subject information specialists, special librarians
Examinations	Entrance, during the course, final

Degrees or other qualifications granted	Graduates get professional titles both in the given speciality and in information and documentation science, e.g. Diplom-Ökonom für Information
Language of lectures	German
Tuition fees	Free
Number of trainees	10 to 15

Plan for other types of course in 1968-70:

An extra-mural course lasting 2 - 2½ years is planned which is intended for actual information and documentation workers who have completed higher studies or for very talented people with a secondary education.

BERLIN

Fachschule für Bibliothekare an wissenschaftlichen Bibliotheken (Professional School for Scientific Librarians),
Charlottenstrasse 40, 108 Berlin

Director: H. Klimpel

Year of foundation: 1963

NON-GRADUATE

Programme	hours
1. Theory and method of information	305
2. History and organization of information	190
3. Sources of information	260
4. Technique of information	150
5. Propaganda of information	55
6. Marxism and Leninism	335
7. Fundamentals of pure and applied sciences	230
8. Foreign languages (Russian, English, French)	510
9. Typing	110
10. Physical training	170

Practical work in the 2nd year - 21 weeks
Practical work in the 3rd year - 6 weeks

Type of training	Professional school for scientific librarians and documentalists
Conditions of admission	A 10-year secondary professional school course or other secondary school certificate
Duration of training	3 years, full-time
For what kind of work are the students being trained	Librarians for scientific libraries and documentalists

Degrees or other qualifications granted	Dokumentalist
Language of lectures	German
Tuition fees	Free
Number of trainees	About 35 per year

BERLIN

Zentralinstitut für Information und Dokumentation (Central Institute for Information and Documentation),
Unter den Linden 8, 108 Berlin

Director: Dr. B. Winde

Basic course in scientific information

Programme	hours
1. Relations of scientific and technical information and other domains of human activity, role of a special library	2
2. National scientific, technical and economic information systems and their social importance	2
3. Sources of information and tools (characteristics and values of various sources)	2
4. Ordering systems	4
5. Ordering techniques	2
6. Patent information and documentation	4
7. Bibliographical description	2
8. Transliteration and transcription	2
9. Catalogues and files	2
10. Subject processing of documents (selection of subject headings)	2
11. Methods for retrieval	4
12. Manual and mechanical selection	2
13. Punched cards	2
14. Apparatus and technique for duplicating documents	2
15. Information needs (information flow, information subject planning, information methods)	2

Type of training	Basic course in information science
Conditions of admission	Scientific and professional workers are admitted
Duration of training	10 days
For what kind of work are the students being trained	Information workers
Examinations	During the course
Degrees or other qualifications granted	None

Language of teaching	German
Tuition fees	Tuition is payable by employers sending their workers to the course
Number of trainees	About 1,000 persons in 1967
Other data	Basic courses with similar programmes are also organized by branch and industrial information centres and the Chamber of Technology in all parts of the country. Besides basic courses there are also advanced courses lasting 1-2 weeks, and refresher courses for information centres workers. Courses are also organized for workers in special fields, such as chemistry or agriculture. Those courses started in 1964. In 1967 420 information workers were trained at those courses.

ILMENAU

Technische Hochschule, Institut für Informationswissenschaft, Erfindungswesen und Recht (Technical University, Institute for Information Science, Inventions and Law),
Strasse der Jungen Techniker 26, 64 Ilmenau

Head: Prof. Dr. F. Weber

Year of foundation: 1968

POST-GRADUATE

Post-graduate Study in Information Science

Programme

1. Informatics and documentation
2. History of information and documentation
3. Fundamentals of the theory of information communication
4. Outlines of cybernetics (covering information theory, theory of systems, and electronic data processing)
5. Fundamental problems in operational research
6. Tasks for information and documentation
7. Organization of information in GDR, other socialist countries, capitalistic countries, international, and international co-operation
8. Socialist management, planning and economics of information
9. Sources of information, collecting, storing and disseminating information
10. Bibliography
11. Standards, patents, designs and trade marks

12. Marketing
13. Documentational processing of information sources
14. Selective dissemination of information
15. Publishing, book selling
16. Copyright
17. Technical means for creation of holdings, information retrieval and communication
18. Reprography
19. Technical means for rationalization of administrative work
20. Methods of identifying and categorizing informational needs of research, scientific and industrial users
21. Fundamentals of psychology
22. Fundamentals of sociology
23. Fundamentals of mathematical logic
24. Fundamentals of semiotics
25. Fundamentals of linguistics

Type of training	Post-graduate study in information science
Conditions of admission	a) University degree or, where applicable, completion of higher professional studies b) work in an information centre
Duration of training	2 years, part-time
For what kind of work are the students being trained	Information scientists, subject information specialists, special librarians
Examinations	During the course and final examination
Degrees or other qualifications granted	Fachinformator
Language of lectures	German
Tuition fees	Free

GERMANY

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BERLIN

Deutscher Normenausschuss (DNA), Ausschuss für Klassifikation (German Committee for Standardization (DNA), Classification Committee),
Burggrafenstrasse 4-7, D-1000 Berlin 30

Director: Dipl.-Ing. N. Ludwig

Year of foundation of the course: 1953

SPECIAL

Seminar in Universal Decimal Classification

Programme

1. Basic course on use of UDC
2. History of UDC
3. The contemporary development level of UDC
4. Working tools of UDC
5. Methods of classifying with the UDC
6. Various applications and limitations of UDC
7. Practical exercises in classifying of given publications

Type of training	Seminar in UDC
Conditions of admission	Sufficient general education and, as a rule, activity in documentation and information centres, libraries, etc.
Are foreign participants allowed	Yes
Conditions of admission	Sufficient knowledge of German language
Duration of training	16 hours, one seminar per year
For what kind of work are the students being trained	Seminar for managers and other personnel of documentation centres and libraries, e.g. information scientists, subject information specialists, specialists in classification, scientific and technical librarians, assistants, and also users of information
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	German
Tuition fees	DM 75

Number of trainees	35

Plans for other types of course in 1969-70

"Introduction to documentation practice with use of UDC"

FRANKFURT/MAIN

Lehrinstitut für Dokumentation in der Deutschen Gesellschaft für Dokumentation (DGD) (Documentation Training Institute, German Documentation Society),
Westendstrasse 19, 6 Frankfurt (Main)

Year of foundation of the courses: 1957

POST-GRADUATE

A. Course for scientific documentalists

Programme	hours
1. Introduction to documentation	13
2. History of documentation: International and national organizations in the field of documentation	16
3. Elements of library science with regard to documentation	32
4. Acquisition of literature, by purchase, exchange, and interlibrary loan	10
5. Elements of terminology	20
6. Processing documents (bibliographical and subject indexing, abstracting, file techniques)	52
7. Classification theory and classification systems	36
8. Universal Decimal Classification	24
9. Information service and its users	24
10. Particular functions of special libraries	13
11. Suppliers and users of information	8
12. Manually operated punched cards	36
13. Mechanization in documentation (punched card techniques, paper tape techniques, electronic data processing)	28
14. Reprography	32
15. Planning and organizing a documentation centre	10
16. Administrative, budgetary, and statistical problems in documentation	28
17. Legal problems in documentation	12
	394
18. Visits to three documentation centres	3 weeks

Type of training	Courses in documentation
Conditions of admission	University degree, practical work in documentation, knowledge of English

Are foreign participants allowed	Yes
Conditions of admission	The same as above and sufficient knowledge of German
Duration of training	13 weeks during one year (full-time)
For what kind of work are the students being trained	Subject information specialists
Examinations	Final examination (oral and written)
Degrees or other qualifications granted	Wissenschaftlicher Dokumentar
Language of lectures	German
Tuition fees	800 DM (tuition fee) 100 DM (examination fee)
Financial aid for trainees	In individual cases by the Institut für Dokumentationswesen
Number of trainees	12 (1968)

NON-GRADUATE

B. Course for documentalists

Programme	hours
1. Introduction and survey of history. International and national organizations in the field of documentation	6
2. Elements of library science with regard to documentation	50
3. Elements of terminology	8
4. Classification theory and classification systems - classification practice (UDC)	60
5. Processing of documents (bibliographical and subject indexing, abstracting, file techniques)	48
6. Information service and its users	16
7. Particular functions of special libraries	10
8. Manually operated punched cards	40
9. Mechanization in documentation (punched card techniques, paper tape techniques, electronic data processing)	60
10. Reprographic techniques	36
11. Legal problems in documentation	8
12. Administrative, budgetary, and statistical problems in documentation	14
13. Planning and organizing a documentation centre, including visits to two centres	32
	388

Type of training	Courses in documentation
Conditions of admission	Leaving certificate from a secondary school, practical work in documentation, knowledge of English
Are foreign participants allowed	Yes
Conditions of admission	The same as above, sufficient knowledge of German
Duration of training	10 weeks during one year (full-time)
For what kind of work are the students being trained	Documentalists
Examinations	Final examination (oral and written)
Degrees or other qualifications granted	Diplomierter Dokumentar
Language of lectures	German
Tuition fees	600 DM (tuition fee) 100 DM (examination fee)
Financial aid for trainees	In individual cases by the Institut für Dokumentationswesen
Number of trainees	21 (1967)

C. Training of assistant documentalists

Programme

The training is extended over 2 years on the job, including:

		hours
I.	Theoretical instruction at the documentation centre Subjects: 1. Cataloguing 2. Simple library routine work to be met within documentation centres 3. Elements of classification including storage techniques 4. Introduction to UDC, including file techniques 5. Reproduction techniques 6. Usage of manually operated punched cards 7. Introduction to mechanized processes in documentation 8. Introduction to administration and statistics 9. Office equipment	200
II.	Visits to documentation centres, libraries, etc.	40
III.	Special course on reproduction techniques at the Documentation Training Institute	40
IV.	Intermediate course at the Documentation Training Institute (subjects as above mentioned)	80
V.	Final course at the Documentation Training Institute (subjects as above mentioned)	80

Type of training	Course in documentation
Conditions of admission	Secondary school education (6 years), knowledge of English
Duration of training	2 years training on the job, including 5 weeks at the Documentation Training Institute (full-time)
For what kind of work are the students being trained	Assistants (persons performing auxiliary functions in documentation work)
Examinations	Intermediate and final examination (oral and written)
Degrees or other qualifications granted	Dokumentationassistent
Language of lectures	German
Tuition fees	150 DM (tuition fee) 50 DM (examination fee)
Financial aid for trainees	In individual cases by the Institut für Dokumentationswesen
Number of trainees	10 (1968)

Plans for other types of course in 1968-1970

Advanced courses in particular subjects of the training programme.

FRANKFURT/MAIN

Zentralstelle für Maschinelle Dokumentation (ZMD) (Center for Mechanization in Documentation),
Herriotstrasse, 6000 Frankfurt (Main) - Niederrad

Director: K. Schneider

Year of foundation of the course: 1965

SPECIAL

A. Course on Mechanization in Documentation

Programme

1. Introduction into mechanized documentation
2. Organization of system designing for data collecting and processing
3. Introduction into data collecting
4. Data storage on punched cards
5. Data storage on punched paper tape
6. Data recording on magnetic tapes
7. Devices for data storing
8. Introduction into automatic data processing
9. Electronic machines for data processing

10. Data transmission
11. Introduction into programming
12. Training in programming
13. Mechanized type-settings
14. Mechanized registration
15. Mechanized retrieval
16. Mechanized preparing of data from peek-a-boo files
17. Automated indexing

Type of training	Special course on mechanization in documentation
Conditions of admission	The participants ought to possess several years of experience in a centre of documentation or in librarianship. Knowledge of mathematics at a higher degree is not necessary
Are foreign participants allowed	Yes
Conditions of admission	Good knowledge of German
Duration of training	The course will be held in two parts; each part lasts two weeks The programme foresees 114 hours of lectures
For what kind of work are the students being trained	Specialists of mechanized documentation and computer programming
Examinations	None
Degrees or other qualifications granted	Certificate
Language of lectures	German
Tuition fees	DM 150 - governmental employees DM 300 - other participants
Financial aid for trainees	None
Number of trainees	Number of participants is limited to 30 persons

B. Course on data storage

Programme

1. Introduction into mechanization in documentation
2. Organization of designing systems for data collecting and processing
3. Introduction into preparing and collecting of data
4. Data storage on punched cards
5. Data storage on paper punched tape
6. Data recording on magnetic tape
7. Devices for data storing

Type of training	Special course on data storage
Conditions of admission	Experience in the field of documentation and librarianship and knowledge of work of a typewriter
Are foreign participants allowed	Yes
Conditions of admission	Good knowledge of German
Duration of training	Five days, 24 hours of lectures
For what kind of work are the students being trained	Data preparing, and storage on punched paper tape and magnetic tapes
Examinations	None
Degrees or other qualifications granted	Certificate
Language of lectures	German
Tuition fees	DM 50 - governmental employees DM 100 - other participants
Financial aid for trainees	None
Number of trainees	30

GHANA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

ACCRA

Department of Library Studies,
P.O. Box 2362, Accra

Director: R.C. Benge

Year of foundation: 1962

GRADUATE

Programme

1. Library administration
2. Reference services
3. Bibliography and documentation
4. Classification
5. Cataloguing
6. Literature of Africa
7. French

Type of training	Library Studies
Conditions of admission	Higher School Certificate or equivalent (minimum)
Duration of training	3 years
For what kind of work are the students being trained	Librarians and documentalists
Degrees or other qualifications granted	Bachelor of Arts in Library Studies
Tuition fees	£ 60 per annum

GUINEA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

CONAKRY

Bibliothèque Nationale (National Library),
INRD, B.P. 561, Conakry

Year of foundation: 1961

Training periods for non-professional librarians for ministries and schools

Programme	hours
1. General problems	20
2. Classification	20
3. Cataloguing	20
4. Bibliography	20

Type of training	Training period
Duration of training	5 weeks

HUNGARY

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BUDAPEST

Eötvös Lóránd Tudományegyetem (ELTE) (The Library Science Department of the Eötvös Lóránd University) and **Országos Müszaki Könyvtár és Dokumentációs Központ (OMKDK)** (The Hungarian Central Technical Library and Documentation Centre),
ELTE, Pesti Barnabás u. 1, Budapest V
Professor: Dr. M. Kovács
OMKDK, Muzeum u. 17, Budapest VIII
Acting Director: (Mrs) S. Lévai

Year of foundation of the course: 1963/64

POST GRADUATE

Course on documentation

Programme	hours
1. Science policy	2
2. Information systems in the national economy	8
3. Special library science	8
4. Fundamentals of documentation	4
5. Sources of documentation activities, bibliography, sources of information literature searching	30
6. Documentation processes and services	20
7. Preparation and compilation of manuscripts	6
8. Systematization of information, classification, indexing	16
9. Problems concerning mechanization of documentation, manual punched cards, mechanical punched cards, mechanization of information systems, reprography, microfilm techniques	22
10. Audio-visual methods in technical information	4
	120

Type of training	Course in documentation
Conditions of admission	University degree; two years practical work in documentation, knowledge of two foreign languages
Are foreign participants allowed	Yes
Conditions of admission	Permission of the Ministry of Education
Duration of training	One year (= 2 semesters), 120 hours
For what kind of work are the students being trained	Subject information specialists

Examinations	End of term and final examinations
Degrees or other qualifications granted	Certificate
Language of lectures	Hungarian
Tuition fees	270 Ft (average)
Financial aid for trainees	None
Number of trainees	In 1968/69 one course: 40 trainees
Other data	The next course is planned for 1970/71

BUDAPEST

Országos Müszaki Könyvtár és Dokumentációs Központ (OMKDK) (The Hungarian Central Technical Library and Documentation Centre),
Muzeum u. 17, Budapest VIII

Acting Director: (Mrs) S. Lévai

Year of foundation of the course: 1957

NON-GRADUATE

Course in library techniques and documentation for librarians of technical and agricultural libraries

Programme	Evening course	Correspondence course
	hours	
1. Economic policy - industrial policy	36	20
2. Library science	116	46
3. Cataloguing	48	20
4. Classification - UDC	68	34
5. Information activities, documentation	116	60
6. History of applied science - history of agriculture	18	10
7. Technical and agricultural technology	36	20
8. Foreign language	128	30
9. Typing (examination only)	-	-
	576	240

Type of training	Course for librarians of technical and agricultural libraries
Conditions of admission	Certificate of final examination of a secondary school, special library activities, knowledge of a foreign language
Are foreign participants allowed	Yes

Conditions of admission	Permission of the Ministry of Education
Duration of training	5 semesters, 2½ years (evening course 576 hrs; correspondence course 240 hrs)
For what kind of work are the students being trained	Special librarians acting in the field of technical, agricultural and natural sciences
Examinations	Entrance examination, end of term colloquia, qualifying (final) examination
Degrees or other qualifications granted	Librarian
Language of lectures	Hungarian
Tuition fees	Evening course about 350 Ft per semester, correspondence course about 300 Ft per semester
Financial aid for trainees	None
Other data	New evening and correspondence courses will start in February, 1970

SPECIAL

Course in classification

Type of training	Short course in classification
Conditions of admission	Classification activities in the field of technical and economic information, certificate of the final examination in secondary school, or univeristy degree
Are foreign participants allowed	No
Duration of training	20 hrs per week
For what kind of work are the students being trained	Classification specialists
Examinations	None
Degrees or other qualifications granted	Certificate of attendance
Language of lectures	Hungarian
Tuition fees	100 Ft
Financial aid for trainees	None

Other data	The themes of the 20-30 hrs information short courses will be fixed by OMKDK on basis of current special problems

Plans for other types of course:

In 1969: application of manual punched cards, 30 hrs
preparation of permuted index, 20 hrs

SPECIAL

Courses on information in foreign languages

1. French course, organized by OMKDK and UFOD (1967): Techniques of handling special French literature, 30 hrs
2. Russian course, organized by OMKDK and VINITI (1968): Expedient forms and means of special information for different groups of users

Type of training	Short courses in foreign languages
Conditions of admission	Information activities, university degree or intermediate grade qualifications, knowledge of the language of the course
Are foreign participants allowed	Yes
Conditions of admission	On basis of permission of the OMKDK
Duration of training	5 days, 30 hrs
For what kind of work are the students being trained	Information specialists
Examinations	None
Degrees or other qualifications granted	Certificate of attendance
Language of lectures	1967: French, 1968: Russian
Tuition fees	About 400 Ft
Number of trainees	Two courses, about 40 trainees
Other data	The aim of the courses is besides getting acquainted with current special problems, that the documentalists should practice the foreign languages; there are no interpreters at the courses

Plans for other types of course:

Short courses in English and German.

INDIA

TRAINING INSTITUTIONS. CURRICULA AND OTHER INFORMATION

BANGALORE

Documentation Research and Training Centre (DRTC), The Indian Statistical Institute,
112 Cross Road 11, Malleswaram, Bangalore 3

Director: Prof. A. Neelameghan

Year of foundation of the course: 1962

POST-GRADUATE

Course in Documentation, Information science, Special librarianship

Programme

The total number of hours for the course leading to the Associateship of the DRTC is about 2250, excluding the post-course trend report. For the preparation of the trend report, residence in the DRTC is not obligatory. The approximate percentage of lectures and tutorial hours for each of the subjects is as follows:

Group I	
1. Universe of subjects, its development and structure	3%
2. Depth classification (theory and practice)	30%
Group II	
1. Library cataloguing	12%
2. Documentation	25%
a) mechanical aid in document retrieval	
b) reprography	
c) evaluation of documentation work	
3. Research and technical library systems	15%
Group III	
1. Post-course apprenticeship in documentation	15%
2. A project in the survey of trends in current literature: six months after the formal course	

Type of training	Special school for research and teaching documentation Course in documentation, information science and special librarianship
Conditions of admission	1. A university degree in one or other of the natural, applied or social sciences, and a university degree or diploma in library science, or an equivalent; or

	2. M.A., M.Sc., or an equivalent degree in one or other of the natural, applied or social sciences, or a degree in engineering, technology, agriculture, animal husbandry or medicine, and some practical experience in documentation.
	Admission to the course is strictly based on the merit of a candidate as judged by his academic record, and if necessary, performance in a special admission test held for the purpose, or personal interview by a selection committee.
Are foreign participants allowed	Yes
Conditions of admission	Same as for Indian students
Duration of training	Full-time course: 15th April of one year to 31st December of the following year. (15th April of one year to 14th June of the following year is the period of the formal course; residence in the DRTC is obligatory. A period of 6 months - 15th June to 31st December - is allowed for completion of a post-course project)
For what kind of work are the students being trained	Documentalists, information scientists, special librarians, subject information specialists, specialists in classification, specialists in abstracting, specialists in mechanization, etc. Librarians in senior positions in special libraries
Examinations	A written and oral test Assessment based on performance in the assignments given during the course, participation in group discussions, colloquia, and seminar; satisfactory completion of the projects; terminal examinations and viva-voce for the post-course work
Degrees or other qualifications granted	Associateship in Documentation Research and Training; and Associate Fellowship in Documentation Research and Training
Language of lectures	English

Tuition fees	No tuition fees. Residence in the hostel attached to the Centre is obligatory during the first fourteen months of the course. A monthly seat rent of Rs 25/- and a monthly hostel mess charge of about Rs 85/- are collected from each student. Cost of books and stationery articles: about Rs 300/- for the course
Financial aid for trainees	Stipends for non-deputed candidates on merit-cum-means basis; and research scholarships
Number of trainees	A maximum of 6 students are admitted for each course. Two research fellows are also taken.
Other data	1) Senior documentalists are given facilities to reside at this Centre and work on a specific project for a period of 2-3 months 2) An annual seminar on specific subjects in the field of documentation forms an integral part of the programme of the Centre. The trainees in the Documentation Course have to participate in this seminar 3) The teachers and research fellows of the Centre are continuously engaged in research in documentation and the technique of teaching in documentation 4) Since its inception in 1962, the staff and students of the Centre have published over 300 research papers. The teaching and the research staff have also published seven books during the same period 5) The Centre publishes the "Library science with a slant to documentation", a learned periodical, in collaboration with the Sarada Ranganathan Endowment for Library Science. It also publishes the volume of papers and proceedings of the annual DRTC seminars

Plans for other types of course in 1968-1970:

Application of management science to library and documentation work.

CALCUTTA

Indian Association of Special Libraries and Information Centres (IASLIC),
Albert Hall 15, Bankim Chatterjee Street, Calcutta - 12

Director: Shri S. Ghoshal, Honorary Registrar

Year of foundation: 1966

POST-GRADUATE

Advanced course for librarians of scientific and technical libraries

Programme	hours
1. Patterns of subject formation	50
2. Research and technical library services	50
3. Depth classification	
a) theory	35
b) practical	35
4. Cataloguing and indexing	
a) theory	35
b) practical	35
5. Documentation	35
6. Bibliographical services	35
7. Information services	50
8. Reprography	25
9. Translation services	25
10. Project report (covering items 3, 4 and 5)	50

Type of training	Course of librarians of scientific and technical libraries Advanced course senior personnel
Conditions of admission	1) Membership of IASLIC 2) Graduation with Degree or Diploma in Librarianship 3) Preference to candidates working in special libraries, especially if nominates
Are foreign participants allowed	Yes
Conditions of admission	Equivalent qualifications
Duration of training	One-year, part-time
For what kind of work are the students being trained	Scientific and technical librarians
Examinations	Written for items 1-9; Written and oral for report 10
Degrees or other qualifications granted	Diploma in Special Librarianship and Documentation
Language of lectures	English

Tuition fees	Rs 150/-
Financial aid for students	1) Gift copies of CC and CCC available through the generosity of the Sarada Ranganathan Endowment 2) IASLIC President's medal to the best student
Number of trainees	6 (4 first class and 2 second class)
Other data	Extension lectures by specialists scientists are arranged

NEW DELHI

The Indian National Scientific Documentation Centre (INSDOC),

Hillside Road, New Delhi - 12

Scientist-in-charge: Mr. S. Parthasarathy

Year of foundation: 1964

POST-GRADUATE

Course in documentation and reprography

Programme

1. Organization and administration of special libraries

   Organization
   a) Libraries. Purpose and functions. Different types of library
   b) Origin of special libraries and their growth
   c) Different kinds of special libraries: libraries attached to industrial, commercial and research organizations
   d) Functions of special libraries in relation to their parent bodies and outside agencies
   e) Physical lay-out and equipment of special libraries
   f) Library co-operation
   g) Public relations

   Administration
   a) Principles of scientific management
   b) Functions and organization of the different sections of a library
      - acquisition: book-selection, ordering, donation and exchange
      - processing: classification, cataloguing and preparation for use
      - readers services: reference and information service, circulation
   c) Personnel administration
   d) Finance and budget
   e) Maintenance

2. Reference service and bibliography

   Reference service

a) Definition: reference, book and reference service
b) Reference books; types and use
  - dictionaries
  - encyclopaedias
  - yearbooks
  - bibliographical dictionaries
  - geographical dictionaries
  - directories, handbooks, manuals and guides
  - bibliographies, indexes and abstracts
c) Reference service: short and long range
d) Literature searching techniques

Bibliography
a) Definition of bibliography
b) Evolution of the concept of bibliography and the emergence of different types of bibliography
c) Bibliographic organization and control
d) Methods of compilation of a bibliography
e) Physical bibliography: types, qualities and size of paper
f) Type faces. Composition. Book illustration. Printing and near-printing processes. Book binding. Preservation of documents

3. Pattern of knowledge and classification

Pattern of knowledge
a) Main trends in the history of science: major contributions made by Greece, Rome and other European countries in the field of science from the early ages to modern times
b) Evolution of research methods: application of scientific methods to social sciences
c) Pattern of development of knowledge: modes of formation of knowledge; study of the universe of knowledge as a dynamic continuum; study of the pattern of development of knowledge in relation to library classification

Classification
a) Need and purpose of classification
b) Theory of classification
  - canons of classification
  - subject analysis
  - fundamental categories and their sequence
c) Notation
  - functions and qualities
  - zone and sector analysis
d) Introduction to major schemes of classification
  - DC, UDC, BC, LC and CC
e) Comparative study of UDC and CC
f) Schemes of classification for special collections and for special purposes
g) Principles of designing classification schedules
h) Relation of classification to subject cataloguing and indexing
i) Classification, its role in information storage and retrieval

4. Cataloguing
   - a) Definition, purpose and functions of the catalogue
   - b) Forms and types of catalogues:
     - physical form: card, sheaf and book forms
     - inner form: author, title, alphabetical-subject, dictionary, classified, alphabetical-classed catalogues
   - c) Different kinds of entry: main and added entries and their functions
   - d) Subject cataloguing and chain indexing
   - e) Catalogue codes. Principles relating to the preparation of cataloguing codes. Comparative study of ALA and CCC
   - f) Selective and simplified cataloguing
   - g) Cataloguing of special types of material
   - h) Union catalogues
   - i) Catalogue maintenance. Featuring, filing, etc.

5. Documentation: organization
   - a) Development of the concept of documentation
     - documentation as a new discipline
     - scope and purpose

   - b) Experiments at international level
     - Royal Society, London; IIB and FID; Concilium bibliographicum; International Institute of Intellectual Cooperation; IFLA; UNESCO
   - c) Documentation centres in developing countries
     - promotion and coordination of documentation services
     - role of UNESCO and FID
   - d) Scope for future development
   - e) Types of documentation centre
     - international, regional, national, local
     - general and subject coverage
   - f) Problems of centralization and decentralization of documentation services
   - g) Sources of information
     - learned and professional societies, government departments, industries and firms, and research establishments
   - h) Kinds of documents
   - i) New trends in scientific communication
     - short communications and letters to the editor
     - data type periodicals
     - previews and reporting type periodicals
     - other forms of communication
   - j) Control of scientific literature
     - Davis's plan, Bernal's plan, Woke's plan, etc.
   - k) Procurement of documents. Organization of service, flow of work, copyright problems, etc.
   - l) Translation service
     - indexes and bibliographies of translations
     - cover-to-cover translations
     - language dictionaries
     - organization of translation work

6. Documentation techniques
   - a) Various kinds of documentation lists, their evolution, purpose and functions
   - b) Documentation lists on demand, in anticipation; retrospective and current. National and international coverage
   - c) Bibliographical citation and their uses
   - d) Compilation of documentation lists
     - standards for bibliographical references including citations
     - abbreviation of titles of periodicals
     - transliteration
   - e) Information indexing
     Special indexes: Co-ordinate index
     Permutation index
     Patent index
     Molecular formula index
     Citation index, etc.
   - f) Abstracting
     - principles of abstracting
     - types of abstract
     - personnel
     - use of author's synopsis
     - slant in abstracting
     - national and international coordination of abstracting services

7. Modern methods of information storage and retrieval
   - a) Information flow system
   - b) Information analysis and selection: description of documents, descriptor language, generic and specific descriptors, thesaurus
   - c) Information storage: recording media like cards, tapes, etc., coding; file organization, etc.
   - d) Information retrieval: search procedure
   - e) Comparative study of information retrieval systems

8. Reprographic methods
   - a) Basic reprographic systems: silver halide photography, diazography, thermography, electrography, hectography, mimeography and graphic arts processes
   - b) Processes, techniques, equipment and materials
     - facsimile copying: contact methods, projection methods
     - microcopying
     - duplicating processes
   - c) Standards and quality control
   - d) Managerial aspects
     - storage, servicing

9. Project report: a detailed trend or documentation report on a special topic

10. Class work: written assignments, participation in colloquia and practical work at INSDOC

The total number of hours for the course leading to the Associateship in Documentation and Reprography of INSDOC, is about 2000, excluding the time devoted to the completion of the project report.

The approximate percentage of lectures and tutorial hours for each of the subjects is as follows:

Organization and administration of special libraries	15%
Pattern of knowledge and classification	15%
Cataloguing and indexing	15%
Documentation	25%
Information retrieval	15%
Reprography	15%
	100%

Type of training	Course in documentation, information science, special librarianship and reprography
Conditions of admission	Only candidates who have at least a second class Master's degree will be admitted to the course, and exceptionally candidates who are already working in the national laboratories and research institutions, provided their record of service achievements justify their admission
Are foreign participants allowed	Yes
Conditions of admission	Same as for Indian students
Duration of training	One year (full-time): August to July of the following year, excluding the three months given after the completion of the project when staying at INSDOC is not obligatory
For what kind of work are the students being trained	Documentalists, documentalists with special subject background, specialists in classification, specialists in abstracting, specialists in mechanization, etc. Scientific and technical librarians, information specialists
Examinations	Assessment based on the written examination at the end of each term, performance on written assignments, participation in colloquia and practical work, and satisfactory completion of the project report
Degrees or other qualifications granted	Associateship in Documentation and Reprography
Language of lectures	English
Tuition fees	Rs 240/- for the whole course plus maintenance charges

	No hostel facilities are provided by INSDOC
Number of trainees	16 with distinctions
Other data	INSDOC undertakes to train practicising documentalists, information officers and librarians for smaller periods, on request from the organization, depending upon the type of training requested

ADDITIONAL INFORMATION

BANGALORE

The **Documentation Research and Training Centre (DRTC)** is sponsored by the Indian Statistical Institute for the purpose of conducting research and to provide advanced training to postgraduates in documentation work and service. One of the objectives of the DRTC is to convene annual seminars on specific topics in the forefront of thought in documentation, for example the subjects of the seminar of DRTC organized in December 1968 were:

I. Subject analysis
II. Quantification
III. Translation services

NAGPUR

Nagpur University, Faculty of Arts, Department of Library Science provided a regular one-year training course for graduates leading to the examination for the Diploma in Library Science.

INDONESIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

There are as yet no training courses in Indonesia. There is, however, a Library School, Medan Merdeka 11, Djakarta.

Dr. W. Lorch, a UNESCO expert in documentation, was assigned in 1962 to the Council for Sciences in Indonesia to assist in setting up a documentation centre. One of his duties is to train future documentalists.

The series of lectures he held included:

1. Collecting and selecting scientific information
2. Storage and retrieval of information
3. Bibliographical work, annotating and abstracting
4. Dissemination of information and publishing
5. Scientific translation
6. Document reproduction

IRAN

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

TEHRAN

University of Tehran, College of Education, Department of Library Science,
78 John F. Kennedy Avenue, Tehran

Bachelor's Degree Programme

1. Introduction to libraries and librarianship
2. Basic reference sources
3. Book selection
4. Basic cataloguing and classification
5. School and public librarianship
6. Academic and special librarianship
7. Children's and young adults' literature
8. Library internship
9. Audio-visual services in libraries

Master's Degree Programme

1. Advanced cataloguing and classification
2. Library materials for children and young adults
3. Library services for children and young adults
4. Special, public and university library service
5. Advanced reference sources
6. Information science
7. Research papers
8. Library internship

Conditions of admission	- for Bachelor's Degree Programme: University undergraduates, ability to read English - for Master's Degree Programme: Bachelor's Degree from an accredited University, ability to read English
Duration of training	Three semesters
For what kind of work are the students being trained	To organize and manage modern university, special, school and public libraries
Degrees or other qualifications granted	Bachelor's Degree in Library Science Master's Degree in Library Science
Language of lectures	Bachelor's Degree Programme: Farsi Master's Degree Programme: English
Tuition fees	According to University schedule
Financial aid for trainees	Scholarship aid and part- or full-time library positions available

I R A Q

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BAGDAD

A course in librarianship is conducted at the **University of Bagdad**

Programme includes:

1. Bibliographical research
2. Cataloguing
3. Classification
4. Acquisition of documents

Duration of training	6 months

IRELAND

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

DUBLIN

School of Librarianship, University College Dublin,
Earlsfort Terrace, Dublin 2

Director: Ellen Power, M.A., F.L.A.

Year of foundation: 1928

POST-GRADUATE and NON-GRADUATE

Programme

1. Bibliography, including historical bibliography and book production
2. Book selection
3. Reference and information work
4. Statistics
5. Systems analysis
6. Cataloguing and classification
7. Administration
8. Research methods
9. Psychology of reading
10. Palaeography
11. Archives

The subjects of the course are conveyed in approx. 12 formal classes, tutorials, practice work, visits to libraries, printing works, bindery etc., which are an essential part of the Course.

Type of training	Course in librarianship and information science
Conditions of admission	1. A university degree for one year course A reading knowledge of 2 modern languages (1 only for public library option) 2. Non-graduates must be at least 19 years of age and have had two years experience in an approved library. They must hold the Matriculation Certificate of the National University of Ireland A reading knowledge of 2 modern languages
Are foreign participants allowed	Yes
Conditions of admission	As above

Duration of training	One-year full-time course for graduated students Two years for non-graduates
For what kind of work are the students being trained	Librarians for University, special and public libraries, archivists
Examinations	The Diploma Examination consists of Papers in bibliography, book selection, reference work, cataloguing and classification and administration, archives
Degrees or other qualifications granted	University Diploma in Librarianship
Language of lectures	English
Tuition fees	£ 40
Financial aid for trainees	None
Number of trainees	Non-English speaking students only. Approximately one student each year
Other data	The School has access to the computer in the Science Faculty. It is fully integrated into the other teaching departments in the University

ISRAEL

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

TEL-AVIV

Center of Scientific and Technological Information, Department of Documentation,
84 Hachashmonaim St., Tel-Aviv

Director of the course: (Mrs) L. Vilentchuk

Year of foundation of the course: 1968

POST-GRADUATE

Course in information science

Programme

1. Sources of information — 120 hours
   a) Basic reference sources and search techniques. Principal reference tools including sources of publications (commercial, professional, governmental, etc.). Selection and acquisition of documents
   b) Information sources in science, technology, commercial and economic literature. Subject encyclopaedias and dictionaries. Monographs. Bibliographies. Review series. Abstracting and indexing services. Theses. Research organizations, data centres and other sources of specialized information

2. Information processing — 150 hours
   a) Cataloguing:
   Types of catalogue: author, title, classified, dictionary. Codes and procedures. Physical forms of catalogues. Filing principles. Chain indexing. Union catalogues. Card services
   b) Principles of classification:
   Introduction to the main library classification schemes: Dewey, LC, Bliss, Colon; detailed study of UDC
   c) Advanced classification and indexing:
   Analysis of retrieval systems. Description of documents. Indexing of books and periodicals. KWIC and KWOC indexes. Feature cards and edge-punched cards. Descriptor languages. Chemical codes. Structural models. File organization and coding. Search procedures. Automation of storage and retrieval. System parameters and procedures
   d) Editing, proof-reading, technical translations, transliteration. Preparation of bibliographies and reviews. Abstracting. Publishing (in Hebrew and English)

3. Use of machines in information processing — 96 hours
   a) Reprography:
   Printing. Contact and optical reproduction methods. Equipment, materials, processes and costs

b) Computers - hardware and software:
  - Systems analysis. Machine-readable records. Mechanical and electronic aids to processing and transmission of information. Optical scanning devices. Practical demonstration
  - Computerized information storage and retrieval. Equipment used in information processing. Machine construction of indexes. Working IR systems utilizing computers: MEDLARS, DDC, Euratom, AEC, NASA, MARC, Chemical Abstracts, Clearinghouse for Federal Scientific and Technical Information, Engineering Index. Computers in libraries. Computerized typesetting. Economic evaluation. Practical demonstration
  - Computer programming. FORTRAN. Simple IR examples. Seminar project

4. Information science 150 hours

Organization, administration and management of scientific and technical information:

a) Generation and use of information. History of science and technology. Information seeking: behaviour of scientists and technologists as communities and as individuals. Dissemination of innovations. Man-system interface. Language and linguistics. Classification theory. Cybernetics

b) National and international information and library networks. History, institutions, cooperation. Literature of information science and librarianship

c) Information centres, data banks and special libraries: subject versus mission orientation. National, academic, industrial, commercial, governmental, public and research institutions, their objectives and special problems of organization, administration and management. Organization and methods (O&M). Introduction to operations research (OR). Survey techniques

d) Design and management of information centres, data banks and special libraries. Physical planning, services and routines, preparation and dissemination of information bulletins and reports. SDI. Staffing, budget and evaluation of performance and costs. Information searches: scope and factors affecting plan and conduct of search

e) Introduction to business and government archives

Visits will be organized to important information centres, libraries, publishing houses, computer installations, research institutes and industrial plants.

Type of training	Course in information science
Conditions of admission	Candidates for the course must be holders of a B.Sc. or B.A. degree

	in the natural sciences, mathematics, statistics, engineering, agriculture, medicine or economics, or its equivalent. Candidates who have special qualifications but have not completed all their degree requirements may be admitted under certain circumstances. Special emphasis will be placed on good knowledge of the English language (reading, writing and speaking) as well as an adequate knowledge of at least one other foreign language
Duration of training	One academic year
For what kind of work are the students being trained	Professional information specialists
Examinations	Examinations consist of: 1) A paper of 3 hours duration in each of the four subject groups of the course 2) A special study, selected in consultation with a lecturer and carried out individually under his supervision. This will provide each student with an opportunity for some intensive work on any topic in the field of information work which is of particular interest to him
Degrees or other qualifications granted	Diploma in Information Science
Language of lectures	Hebrew and English
Tuition fees	Every year decided ad hoc
Number of trainees	15

ITALY

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

MILANO

Istituto Superiore di Tecnologia Industriale (Higher Institute of Industrial Technology),
Piazza Tito Lucrezio Caro 8, Milano

SPECIAL

Course on documentation and planning studies

Programme

1. Theoretical bases of planning
2. Tools for planning: philosophical instrument, mechanics of thinking and principles of mechanizing the activities of an intelligent human being, composition of a correlational network, the mathematical instrument, the cooperation
3. Planning: dimensional and metric analysis of the obstacle to be surmounted
4. Documentation activities: collecting data for planning which are adequate for the obstacle to be surmounted, criteria for analysis of documents, classification of documents, correlation between various classifications, methods of supplying information, mechanical translation
5. Planning: choice of material, technical synthesis, technological synthesis, control

Type of training	Evening course for advanced training of industrial workers

ROME

Scuola di Tecnica dell' Informazione, Universita degli Studi di Roma, Facoltà di Scienze Statistiche, Demografiche e Attuariali (School of Information Techniques at the Faculty of Statistical, Demographic and Actuarial Sciences of the University of Rome),
Citta Universitaria, Rome

Director: Prof. F. Fattorello

Year of foundation of the School: 1949

NON-GRADUATE

Programme

First-year students who passed all the compulsory examinations may obtain permission to take subjects of the second year. Since the lectures of the first and second year are held on alternate days, it is practically possible to go through both years at the same time.

1st year of studies (lectures)

1. General sociology
2. Theory of studying public opinion
3. Social theory of information
4. History of means of publication
5. Technique of sounding public opinion
6. Legislation concerning journalism

2nd year of studies (lectures)

A. General subjects
   1. General methodology of organization
   2. Methodology of planning

B. Techniques in relation to means of information
   1. Techniques of journals and bulletins
   2. Techniques of graphic art and posters
   3. Film technique
   4. Techniques of oral, radio broadcasting and television propaganda
   5. Techniques of reproduction and automatic documentation

2nd year of studies - specialization (seminars)

1. Technique of ideological propaganda
2. Technique of commercial publications
3. Technique of scientific documentation
4. Technique of tourist propaganda
5. Technique of the organization of exhibitions
6. Technique of insurance propaganda
7. Public relations (maintaining relations with other institutions)
8. Technique of military journalistic organizations

Type of training	Professional school of information techniques
Conditions of admission	1. Birth certificate 2. Good conduct certificate 3. Leaving certificate of a secondary school Officials and employees of state enterprises can present a certificate issued by their superior authorities containing their personal data, data concerning their studies (place, year and kind of school they have completed) and a written opinion from their place of work with the position they have occupied - instead of documents mentioned above
Duration of training	Two years
For what kind of work are the students being trained	- young people who wish to master the profession of information

	assistant and work in state administration after receiving their diploma - employees of state and private enterprises who would like to make their work more efficient - persons who would like to obtain managing jobs in the press or in propaganda - persons who intend to work in documentation centres, research centres, or in the information service. Special training indispensable to a documentalist's work, including the most recent achievements in the methodology of scientific documentation, is being arranged for the last group The school also confers a degree qualifying graduates to fill the post of press attachés
Examinations	No entrance examinations Students take examinations every year. Students who have passed all the examinations required for the second year are admitted to the final examination (diploma). All students who intend to obtain a degree of "information techniques expert" must take examinations in all the subjects which are general or special of the 2nd year. They must also pass examinations in journalistic information, graphics, film, oral, radio broadcasting and television propaganda techniques and finally in the techniques of reproduction and automatic documentation
Degrees or other qualifications granted	Information techniques expert
Language of lectures	Italian
Tuition fees	-for the entire course 20.000 lire -for the final examination 10.000 lire -for each examination taken during the course 400 lires

Number of trainees			
	1949: 14	1954: 18	1959: 12
	1950: 11	1955: 13	1960: 9
	1951: 18	1956: 16	1961: 11
	1952: 20	1957: 14	1962: 22
	1953: 13	1958: 13	

ROME

Consiglio Nazionale delle Ricerche (National Research Council),
Piazzale delle Scienze 7, Rome

Director: Prof. P. Bisogno

Year of foundation of the course: 1968

Course of documentation

Programme

Theoretical part	hours
1st day:	
1. Introduction	
2. Documentation and information: definitions and entity. Activity of a documentalist	1
3. The document and its various parts	1
4. Availability of documentation for chemists in US university libraries	1
5. Types of information and collections relevant to them, with special reference to bibliographies, scientific books and other scientific literature	1
6. A brief survey of principal systems of cataloguing: Italian specifications of the Ministry of Industry, the Vatican and ALA	1
2nd day:	hours
1. Brief information on principal systems of classification: Dewey, UDC, LC	1
2. System of classification with facets and key-words	1
3. Availability of documentation for chemists in libraries of Australia and Paris	1
4. Electronic devices for automatic information retrieval	1
5. Terminology and problems relevant to linguistics	1
6. Xerography and microfilm as media for disseminating information	1
7. Electronic devices for automatic information retrieval	1

All lectures end with a discussion on the lectured subject between lecturers and students

Practical part

3rd day:

Compilation and comparison of catalogues. Exercises according to specifications of the Ministry of Industry and the Vatican with the following examples:

hours

a. work by one author
b. work by two authors
c. work by more authors
d. work according to title
e. periodicals (when the title changes, or fusion with another periodical occurs, or when publishing stops)
f. articles from a periodical
g. collections
h. governmental documents
i. congresses, conventions, symposia, conferences
j. patents 5½

4th day:

Classification of the above publications by UDC, facets and key-words 5½

5th day:

1. Analysis of possible compatibility among the principal universal classification systems 3½
2. Visit to the Electronic Centre of the Bank of Rome 2

Discussion

6th day:

1. Practical work 1½
2. The functions of information in research and industry in Italy
3. Methods of meeting the users' needs by information and documentation services, and editorial dissemination of their results
4. How to organize a documentation service with regard to cooperation of various services 2

Type of training	Refresher course of documentation
Duration of training	6 days
For what kind of work are the students being trained	Workers of experimental stations of the Italian industry, scientific and technical librarians
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Italian
Number of trainees	20

Plans for other types of course in 1969-70:

A course on dissemination of information is planned.

ROME

Istituto Nazionale per l'Incremento della Produttività,
Piazza Indipendenza, 11/B - 00185, Rome

Director: A. Lusignoli

Year of foundation of the courses: 1964

SPECIAL

Course on organizational and structural problems of documentation and information

Programme

1. Collecting of documents
   a. scope of collection
   b. information material
2. Classification of documents
   a. subject catalogues
   b. classification systems
   c. cataloguing and kinds of catalogue
   d. patent classification
3. Cataloguing of documents
4. Preservation of documents
5. Selection and analysis of documents

Type of training	Special course
Duration of training	5 days
For what kind of work are the students being trained	The course is intended for persons employed in libraries, documentation and information services, offices, etc. who wish to deepen their knowledge and bring it up-to-date
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Italian
Tuition fees	30.000 lire
Number of trainees	Not more than 15 students may attend the course at a time

SPECIAL

Course on the modern archive

Programme

1. Principles and problems of the science of administration
2. Analysis of the organizational structure of an institution and its activities
3. Organization of the archival service
4. Classification: determination of the classification system
5. Equipment of the archives

Type of training	Special course
Duration of training	5 days
For what kind of work are the students being trained	The course is destined for archive personnel
Examinations	None
Degrees of other qualifications granted	None
Language of lectures	Italian
Tuition fees	30.000 lire
Number of trainees	Not more than 15 students may attend the course at a time

SPECIAL

Course on audio-visual methods of transmitting information

Programme

1. Phenomenon of communication
2. Elements of the technique of communication
3. Means of communication
4. Technique of audio-visual communication
5. Presentation of audio-visual methods of informing and communicating
6. Information and training techniques by means of radio, television, film and press
7. Summing-up and conclusions

Type of training	Special course
Duration of training	5 days
For what kind of work are the students being trained	The course is intended for managers and personnel of state institutions and for instructors conducting work by audio-visual methods

Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Italian
Tuition fees	50.000 lire
Number of trainees	Not more than 20 persons may attend the course at a time

SPECIAL

Course on photodocumentation and microreproduction

Programme

1. The photographic process, its origin and development
2. Knowledge of physics and chemistry, photographic technique, preservation and checking of equipment
3. Practical exercises in a photographic laboratory
4. Microphotography of documents
5. Microphotographic system, microphoto technique
6. Equipment of a laboratory
7. Defects and shortcomings of microfilms
8. Practical exercises in microphotography

Type of training	Special course
Duration of training	Two weeks
For what kind of work are the students being trained	Employees of photographic and microphotographic laboratories
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Italian
Tuition fees	30.000 lire
Number of trainees	Not more than 15 persons may attend the course at a time

SPECIAL

Course on mechanization of documentation

Programme

1. Structure and functioning of a documentation and information centre
2. The technique of document reproduction
3. The technique of preserving documents

4. Checking the microfilms archive
5. Automatic documentation
   a. equipment for automatic reproduction of documents
   b. document retrieval by means of electronic apparatus
   c. automatic indexing of literature

Type of training	Special course
Duration of training	5 days
For what kind of work are the students being trained	Librarians and personnel of documentation and information centres
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Italian
Tuition fees	30.000 lire
Number of trainees	Not more than 15 persons may attend the course at a time

ADDITIONAL INFORMATION

TORINO

The **Centro di Studi ed Applicazioni di Organizzazione Aziendale della Produzione e dei Trasporti** (Centre for Studies and Applications of Production and Transport Management) sporadically arranged courses in documentation and information techniques.

The first one was held in 1963 - "Refresher course on documentary and information techniques", the second in 1965 - "Training and re-training in the field of documentary techniques".

JAPAN

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

TOKYO

Keio University, School of Library and Information Science, Faculty of Letters

Mita, Minoto-ku, Tokyo

Director: Prof. T. Sawamoto

Year of foundation: 1951 as Japan Library School,
1967 Graduate Program started,
1968 name of School changed to School of Library and Information Science

GRADUATE

A. Undergraduate programme of training

Requirements for graduation:

To receive the Keio University Degree of Bachelor (Faculty of Letters) or Bungakushi, students must - in addition to the general education course requirements - meet the following requirements:

1) Students who are candidates for the degree will complete a total of not less than 72 units noted below, over and beyond general education studies:
   - 36 units of required courses in library and information science
   - at least 10 units of elective courses in library and information science
   - at least 26 units of elective courses from the list of approved courses of the Faculty of Letters
2) Students will have practical work counting for 8 units over and above the 72 units noted above. Students should plan to spend two weeks in the observation and practice assignment. This is carried on in certain outstanding libraries or information centres. The assignment includes directed, individual study and thesis based on the practice and observation
3) Students may take other courses which are not listed as required or elective; however, the units of these courses are not to be counted in the 72 units required for the degree

Programme

Required courses	Semester	Units
1. Introduction to library and information science	I-II	2
2. Readings and colloquim of basic literature	I-II	2
3. Information systems: introduction	I-II	2
4. Organization of recorded materials (I)	I-II	3
5. Organization of recorded materials (II)	I-II	3

6. Organization of recorded materials (III)	I-II	4
7. Introduction to information storage and retrieval	I	2
8. Reference and information service	I-II	2
9. Reference and information sources	I-II	2
10. Japanese and Chinese classic materials	I-II	2
11. The literature of the humanities	II	2
12. The literature of the social sciences	I	2
13. The literature of science and technology (I)	I	2
14. Audio-visual materials	I-II	2
15. Selection of recorded materials	I	2
16. History of books and libraries	I-II	2

In lieu of the degree examinations:

Practice and thesis	Summer	8

Elective courses	Semester	Units
1. Administration of library and information systems (I)	I	2
2. Administration of library and information systems (II)	II	2
3. Administration of library and information systems (III)	II	2
4. Administration of library and information systems (IV)	II	2
5. The literature of science and technology (II)	II	2
6. Literature for children and young people (I)	I	2
7. Literature for children and young people (II)	II	2
8. Audio-visual education	I	2
9. Special course in library and information science	I-II	2
10. Seminar on library and information science	I-II	2

Other approved elective courses in the Faculty of Letters (the figures in brackets are course units):

Bibliography (4)
Philosophy (8)
Epistemology (4)
Chinese philosophy (4)
Ethics (8)
Aesthetics (4)
Arts (4)
History of education (4)
Social education (2)
Principles of education (3)
Educational statistics (2)
Educational psychology (4)
Social psychology (4)
Sociology (8)
Rural sociology (4)
Social survey (4)
Diplomatics (4)
History of philosophy (4)
Religious philosophy (4)
Indian philosophy (4)
History of ethics (4)
History of fine arts (8)
Education (8)
Educational administration (4)
Philosophy of education (2)
Educational measurement (4)
Psychology (8)
Clinical psychology (4)
Educational sociology (4)
Human ecology (4)
Urban sociology (4)
Statistics (4)

Social policy (4)
Social work (4)
Economic history (4)
Constitutional law (4)
Political history (4)
Principles of mass communication (4)
Methods of historical study (4)
Oriental history (8)
Geography (4)
Ethnology (4)
Museum science (7)
Japanese language (4)
History of Japanese literature (4)
Chinese literature (4)
English language (4)
American literature (4)
History of American literature (4)
German literature (4)
French language (4)
History of French literature (4)
Latin language (2)
History of social ideas (4)
Principles of economics (4)
Industrial history (4)
Political science (4)
History of legislation (4)
Current topics (4)
Japanese history (8)
Western history (8)
Anthropology (4)
Archeology (4)
General linguistics (4)
Japanese literature (4)
Chinese language (4)
History of Chinese literature (4)
English literature (4)
German language (4)
History of German literature (4)
French literature (4)
Russian literature (4)
Greek language (2)

B. Graduate programme

Requirements for graduation:

To receive the Keio University Degree of Master or Bungaku-shushi, students must meet the following requirements:

1) Students shall reside on the campus for at least 2 years
2) Students shall complete a total of not less than 32 units of credit noted below:
   - 22 units of required courses
   - at least 10 units of elective courses
3) Students shall submit a thesis to the Graduate School Committee and pass the final examinations

Programme
(the figures in brackets are course units)

Required courses

1. Information science: introduction (4)
2. The structure of information (I) (2)
3. Information systems (4)
4. Research methods (I) (4)
5. Research methods (II) (4)
6. Information storage and retrieval (I) (4)
7. Mechanization in information handling (4)

Elective courses

1. The structure of information (II) (2)
2. The structure of information: seminar (2)

3. Information systems: seminar (I) (2)
4. Information systems: seminar (II) (2)
5. Information storage and retrieval (II) (2)
6. Information storage and retrieval (III) (2)
7. Information storage and retrieval: seminar (I) (2)
8. Information storage and retrieval: seminar (II) (2)
9. Information storage and retrieval: seminar (III) (2)

Type of training

Academic study in Library science and Information science

Conditions of admission

1) The second-year programme
    - those who have acquired at least a total of 32 units of credit of general education studies in a reputable college or university
    - those who have finished their second year in an old system higher shcool or in the preparatory course of an old system university, or in an old senmon gakko
    - those who are graduates of a junior college
    - those who are certified to have completed courses which are equivalent to or are beyond the levels noted above
    - entrance examinations
2) The third-year programme
    - those who have graduated from a new system college or university
    - those who have graduated from an old system university
    - those who are certified to have finished courses which are equivalent to or are beyond the levels noted above
    - entrance examinations
3) The graduate program
    - those who have graduated from a new system college or university
    - those who have graduated from an old system university
    - those who are certified to have finished courses which are equivalent to or are beyond the levels noted above
    - entrance examinations

Duration of training	1) Undergraduate programme - 4 years including general education study 2) Graduate programme - at least 2 years
For what kind of work are the students being trained	Information scientists, information officers, scientific and technical librarians, special librarians, teacher librarians
Examinations	Entrance examination
Degrees or other qualifications granted	1) Keio University Degree of Bachelor (Faculty of Letters) 2) Keio University Degree of Master All graduates of the School are entitled to a librarian certificate
Language of lectures	Japanese
Tuition fees	1) Undergraduate programme: Y 179,150 2) Graduate programme: Y 70,900
Financial aid for trainees	Scholarships: 1) Japan Scholarship Association Scholarship Funds Students interested in this scholarship may make inquiries to the Dean of Students on the Mita Campus, Keio University 2) Keio Scholarship and Loan Funds The funds have been established to assist excellent Keio students in real need. One scholarship will carry a monthly stipend of Y 5,000 or 3,000. Loans of Y 3,000 or 2,000 a month will be considered. Inquiries may be made to the Dean of Students on the Mita campus 3) SLIS Scholarship Funds In addition to the foregoing, the following scholarships have been made available for the 1968-69 academic year. They will be granted to students already enrolled and studying in the School of Library and Information Science Program through the School's Committee on scholarship. Founding Director's (RLG) Scholarship Y 36,000 Budayu Kogure Memorial Scholarship - two for graduate students Y 80,000 each

	- two for undergraduate students Y 40,000 each Onuma Scholarship Y 50,000 Children's Librarianship Scholarship Y 50,000
Number of trainees	1) To the second-year programme: 50 and several transfers 2) To the third-year programme: 50 and several transfers 3) To the graduate programme: 10-20
Other data	Since 1951 the School of Library and Information Science has organized various seminars and workshops in order to reach and assist in-service personnel in the field of Library Science and Information Science all over Japan

MALI

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BAMAKO

The **Ministry of Information in Bamako** has organized introductory courses in documentation since 1963.

Programme includes:

1. Acquisition of documents
2. Cataloguing
3. Classification
4. Loans, etc.

Duration of training	1 or 2 months

NETHERLANDS

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

AMSTERDAM

Bibliotheek- en Documentatieschool (Library and Documentation School),
Keizersgracht 225, Amsterdam

Director: P.H. Berkelaar

Date of foundation of the school: 1964

NON-GRADUATE

First course (two years)

Programme	hours 1st year	 2nd year
1. Documentation and collections		
a) types of document	2	-
b) history of the book	8	8
c) history of newspapers and periodicals	2	2
d) history of (technical) reports	2	-
e) history of standards and patents	3	-
f) graphical techniques	7	-
g) binding	4	-
h) reprography	8	4
i) book selection and collection building: public libraries	10	2
j) book selection and collection building: youth and school libraries	-	14
k) promotion of juvenile reading	8	-
l) reader consultation on novels	10	-
m) encouragement of reader interest	10	8
n) book selection and collection building: scientific libraries	-	2
o) book selection and collection building: special libraries	4	-
	78	40
2. Literature processing and reference work		
a) introduction		
- forms of catalogues	2	-
- theory of literature processing	24	10
- knowledge of names	-	3
- bibliography, history and use	8	6
- abstracting journals, history and use	2	-
- government publications (see 8)	-	-
- periodicals	10	2
- newspapers	5	2
- reference work (public, youth and science libraries)	4	4

	hours	
	1st year	2nd year
- documentation	8	6
- periodicals circulation	2	-
- manuals and reference works	12	8
b) practice		
- title description	50	50
- title description for special materials	2	5
- alphabetic arrangement	12	-
- classifying by S.I.S.O. (Dutch public libraries classification system)	22	24
- classifying by UDC	15	15
- keyword indexing	12	3
- annotation	20	18
- abstracting	12	16
- select title lists	-	4
	222	176
3. Libraries: administration and organization		
a) finance	-	6
b) building and installation	4	-
c) flow of the book through the library	2	-
d) charging systems: administration, stock management	4	2
e) library statistics	3	-
f) communication and mechanization	2	3
g) human relations	4	-
h) public relations	-	6
i) types of library	2	-
j) public library, history and aims	4	2
k) provincial library centres	4	-
l) youth and school libraries, history and aims	4	4
m) work with old people	2	-
n) music and record libraries	4	-
o) libraries for the blind	-	2
p) prison libraries	-	2
r) library extension work	-	4
s) scientific libraries	3	-
t) special libraries	2	-
	44	31
4. Library science, documentation and related subjects		
a) history of library science	10	8
b) library and documentation organization	8	2
c) scientific libraries at home and abroad	5	8
d) special libraries at home and abroad	-	3
e) interlibrary loan	2	-
f) pools	-	2
g) library integration	-	2

	hours	
	1st year	2nd year
h) archives (incl. archive work)	-	5
i) book trade, publishing and antiquarian book trade	5	-
j) industrial property	-	2
k) standardization	2	-
	32	32
5. Professional literature (incl. professional journals)	6	12
6. Literature on special subjects		
a) organization of science	6	6
b) religion	10	-
c) law	4	-
d) natural sciences and technology	20	10
e) history	-	10
f) economics	18	-
g) social sciences	-	8
h) geography	-	6
	58	40
7. Linguistics and literature		
a) languages		
- Dutch (drafting, letters, criticism of style)	6	10
- basic Latin	10	-
b) literature Dutch, French, German, English-American, Spanish, Italian, Russian	84	120
c) literature for young people	18	-
	118	130
8. Philosophy and culture philosophy, psychology, religious and philosophical movements, the ancient world, the world of the Bible, outline of the great periods of the Western and other cultures, social structures, organization of government (and government publications), current politics, mass communication (radio and television)	82	120
9. Practical training		
a) preparation, discussion, group discussions	8	10
b) optional subjects		
10. Visits	20	20
total hours of first course	668	611
11. Russian (optional)	-	30

Second course: training for management functions

Programme	hours
1. Document, management and function	
a) incunabula	4
b) history of the book	8
c) bibliography: history, theory, practice (introduction and practical work)	19
d) collection building:	
- public libraries	4
- special libraries	2
- scientific libraries	4
- introduction and practical work	6
e) antiquarian book-trade	6
f) availability of literature	10
g) documentation and literature searching	14
h) mechanical aids	14
i) patent law	4
j) standardization	2
	97
2. Management and organization	
a) internal organization and planning, library building and installation:	
- public libraries	24
- special libraries	5
- scientific libraries	6
- the Royal Library	1
- the University Library of Amsterdam	1
- the Public Library in Amsterdam	1
- introduction and practical work	6
b) form of management of the public library	3
c) financial management of the public library	24
d) industrial sociology (incl. personnel management)	15
e) legal status of public library staff	3
f) personnel management and internal communication	8
g) policy matters	8
h) publicity and public relations	8
	113
3. Library science and related subjects	
a) centralized services to public libraries at home and abroad	6
b) public library work in relation to religious and philosophical backgrounds	8
c) co-operation and division of tasks in the Netherlands library system:	
- generalities and scientific libraries	6
- special libraries	2
- library organizations in the field of public libraries	8

	hours
- provincial library centres	3
- the library for young people in the public library	6
d) public libraries and government	6
e) library systems abroad and international co-operation:	
- public libraries	4
- special libraries	4
- scientific libraries	6
f) documentation at home and abroad	6
g) archives	6
h) copyright, etc.	4
i) organization of scientific research	6
j) history of library science	8
	89
4. Professional literature (introduction and practical work)	20
5. Current topics and literature provision on these	20
6. Various	
a) introduction and closure of course and group discussions	13
b) practical training: introduction and discussion	8
c) visits	90
d) examinations	10
	121
total hours of second course	460

Type of training	Professional day library and documentation school
Conditions of admission	Graduates from secondary schools (e.g. gymnasium)
Duration of training	3 years (the programme consists of a basic and an advanced course, totalling three years)
For what kind of work are the students being trained	Librarians and documentalists
Examinations	At the end of the two-year course there will be an examination in assistant-librarianship. At the end of the third year there will be examinations in chief-librarianship, librarianship for young people, the blind, music, etc.
Degrees or other qualifications granted	Assistant-librarian and librarian

Language of lectures	Dutch
Tuition fees	Maximum ƒ 200.--, according to the parents' income
Number of trainees	1965/66 - about 150 students

THE HAGUE

Gemeenschappelijke Opleidingscommissie van NIDER, NVB, NVBA (Joint Training Committee of the Netherlands Institute for Information, Documentation and Filing, the Netherlands Association of Librarians and the Netherlands Association of Business Archivists),
19 Burg. van Karnebeeklaan, The Hague

Secretary: A. van der Laan

Year of foundation of the course: 1951

The Joint Training Committee organizes a number of different courses known by the letters A1, A2, A3, B, C, D and E:

- the three A courses are intended for library staff working in respectively:
  - A1 - technical libraries
  - A2 - non-technical libraries (such as libraries of non-technical government agencies)
  - A3 - university libraries and libraries of learned societies;
- the B and E courses are intended for business archivists;
- the C course is intended for literature searchers (information officers);
- the D course is an advanced course for participants of the courses after some years of experience.

In addition the Joint Training Committee organizes a special correspondence course in classification, alphabetical indexing and bibliographical description.

POST-GRADUATE

C - Course for literature searchers (information officers)

Programme	hours
1. Introduction to course	2
2. Communication, information, documentation	2
a) Position and task of the documentation officer and literature searcher	2
b) Functional organization of a documentation service	3
3. Sources of knowledge	
a) External organization:	
- organization of research, science, industry and government	4
- external organization of libraries, archives and information/documentation centres	2

	hours
b) Internal organization:	
- libraries: organization and technique	2
- archives: organization and technique	2
- information services	2
- activities of international organizations (FID, ISO) and Netherlands Standards Institute and Netherlands Institute for Information, Documentation and Filing (NIDER)	2
c) Knowledge of documentation sources:	
- types and kind of sources, bibliographical knowledge	2
- sources on various subjects	7
- patents: bibliographical knowledge and enquiries	4
4. Information techniques	
a) Abstracting	5
b) Critical judgement and logical interpretation of sources	2
c) Literature searching	2
d) Reporting:	
- preparation of literature reports	8
- cataloguing, alphabetical indexing	4
e) Principles and use of classification schemes:	
- key-word system	5
- principles of classification and planning of a classification scheme	5
- introduction to the Universal Decimal Classification and the practical use of this system	18
- the use of an abridged UDC	3
f) Selection methods	5
g) Storage media for data and image recording:	
- documentary reproduction	2
- training with technical aids	2
h) Automation and mechanization of information processing	3
Preliminary examination and tests	12
Preparation of special report	4
Visits	6
Final review	2
Total	124

Type of training	Part-time course
Conditions of admission	Bachelor's degree
Are foreign participants allowed	Yes
Conditions of admission	Same as above and sufficient knowledge of the Dutch language
Duration of training	13 months (part-time course taking one-day per fortnight)

For what kind of work are the students being trained	Literature searchers
Examinations	Oral and written, final examinations on main subjects
Degrees or other qualifications granted	Certificate (diploma)
Language of lectures	Dutch
Tuition fees	ƒ 520.--
Number of trainees	20 per year

A1 - Basic course for technical librarians

Programme	hours
1. Introduction	1½
2. Cataloguing	3
3. Bibliographical description of books	22
4. Bibliographical description of patents	
5. Alphabetical indexing	10½
6. Classification by UDC	20
7. Subject indexing by key-words	5
8. Acquisition of material	5
9. Organization of governments and governmental publications	6
10. Administration - loan and circulation systems, ordering, budgets	4
11. Miscellaneous questions	4½
12. Set-up of libraries	5
13. Book-binding	2
14. Central catalogues	2
15. Documentary reproduction	3
16. Library organization and policy	3
17. Industrial organization	2
18. Books, bookshops and book trade	4
19. Information services	2
20. Library organization in the Netherlands	1½
21. Library organization in other countries	2
22. Organization of documentation in the Netherlands and in other countries	3
23. Scientific libraries	2
24. Public libraries	2
25. Special libraries	2
26. Documentation services in industrial firms	3
27. Archives	3
28. Special reports and discussion thereon	10
total	133
General information	7
Tests and discussions	11
Final discussion	1
Visits	3
Total	155

Type of training	Part-time course
Conditions of admission	A junior secondary school certificate with at least 8 months of library experience
Are foreign participants allowed	Yes
Conditions of admission	Same as above and sufficient knowledge of the Dutch language
Duration of training	9 months, one day per week
For what kind of work are the students being trained	Junior technical librarians
Examinations	Oral and written, final examinations on main subjects
Degrees or other qualifications granted	Certificate (diploma)
Language of lectures	Dutch
Tuition fees	ƒ 400.--
Number of trainees	35-60 per year

A2 - Basic course for non-technical librarians

Programme	hours
1. Introduction	1
2. Cataloguing	3
3. Bibliographical description of books	20
4. Alphabetical indexing	10½
5. Classification	ca 20
6. Subject indexing by key-words	5
7. Acquisition of material	5
8. Organization of governments and governmental publications	6
9. Administration - loan and circulation systems, ordering, budgets	4
10. Miscellaneous questions	4
11. Set-up of libraries	5
12. Book-binding	2
13. Central catalogues	2
14. Documentary reproduction	5½
15. Library organization and policy	3
16. Industrial organization	2
17. Books, bookshops and book trade	4
18. Information services	2
19. Library organization in the Netherlands	1½
20. Library organization in other countries	2
21. Organization of documentation in the Netherlands and in other countries	3
22. Scientific libraries	2
23. Public libraries	2

		hours
24. Special libraries		2
25. Documentation		4
26. Archives		4
27. Special reports and discussion thereon		10
	total	135
General information	ca.	9½
Tests	ca.	10
Final discussion		1
Visits		4½
	Total	160

Type of training	Part-time course
Conditions of admission	A junior secondary school certificate with at least 8 months of library experience
Are foreign participants allowed	Yes
Conditions of admission	Same as above and sufficient knowledge of the Dutch language
Duration of training	9 months, one day per week
For what kind of work are the students being trained	Junior non-technical librarians
Examinations	Oral and written, final examinations on main subjects
Degrees or other qualifications grantes	Certificate (diploma)
Language of lectures	Dutch
Tuition fees	ƒ 400.--
Number of trainees	30-35

A3 - Basic course for work in university libraries and libraries of learned societies

Programme

	hours
1. Introduction	4
2. Bibliographical description	22
3. Organization of science	4
4. History of libraries	4
5. The principal national and international libraries	4
6. Loan administration	6
7. Types of organization	4
8. Various forms of catalogues	14
9. Stock management and set-up of library	6
10. Manuscripts	3
11. Books, history and development	10

	hours
12. Bibliographies	20
13. Various forms of library work	4
14. Alphabetical indexing	12
15. Acquisitions	6
16. Documentary reproduction	3
17. Suppliers and publishers	3
18. Organization of governments	5
19. Documentation	3
Tests and discussion	19
General information	7
Final discussion	2
Total	165

Type of training	Part-time course
Conditions of admission	A junior secondary school degree with at least 8 months of library experience
Are foreign participants allowed	Yes
Conditions of admission	Same as above and sufficient knowledge of the Dutch language
Duration of training	9 months, one day per week
For what kind of work are the students being trained	Junior scientific librarians
Examinations	Oral and written, final examinations on main subjects
Degrees or other qualifications granted	Certificate (diploma)
Language of lectures	Dutch
Tuition fees	ƒ 400.--
Number of trainees	30-60

SPECIAL

B - Basic course for business archivists

Programme

1. Introduction to the course
2. Tasks of the filing departments
3. Organic arrangement of files
4. Functional arrangement
5. Organization of the filing department
6. Classification systems
7. Records
8. Reproduction methods
9. Various qualities of paper

10. Sizes of paper
11. Standardization, principles and application
12. Principles of bibliographical indexing
13. Structure of the archive world
14. Acquisition
15. Library management and administration
16. Handling of drawings in the archive
17. Indexing of mail
18. Types and organization of libraries
19. Closed inventory
20. Handling folders and catalogues
21. Governmental documents
22. Accounts documents
23. Key-words
24. Organization of the mail department
25. Screening of files
26. Transport documents
27. Secret and confidential papers
28. Knowledge of contracts
29. Literature survey - technique
30. Keywords - application
31. *Giving service to clients*

Visit to a reproduction department
Visit to an industrial archive
Tests and discussions

Type of training	Part-time course
Conditions of admission	A junior secondary school degree
Are foreign participants allowed	Yes
Conditions of admission	Same as above and sufficient knowledge of the Dutch language
Duration of training	9 months, one day per week
For what kind of work are the students being trained	Industrial archivists
Examinations	Oral and written, final examinations on main subjects
Degrees or other qualifications granted	Certificate (diploma)
Language of lectures	Dutch
Tuition fees	ƒ 400.--
Number of trainees	17

D - Course for librarians in leading functions

Programme	hours
1. Introduction	
a) Introduction to the course	1
b) Practical hints, contacts	2

	hours
c) The library - purpose and place in social life:	
- in general	3
- in industry	2
- discussions on task and position	2
d) History of the library world	5
e) Present state of library science	5
2. Organization	
a) Organization and structure	7
b) Organizational problems in big and in small libraries	2
c) Lay-out	6
d) Staff problems, management and internal communication	8
e) Financial management and records	3
f) Mechanical aids for information research:	5
- application of mechanization in the library of Unilever NV - Rotterdam	2
g) National and international co-operation with other libraries and documentation centres; internal co-operation	2½
3. Library material	
a) Acquisition	2
b) How to trace material:	
- systems used and classification	8
- making one's own classification	4
- abstracting	2
c) Performance of an enquiry service	1
4. Bibliography and documentation survey	
a) Bibliography:	
- bibliography in general	4
- bibliography of special fields of science:	
natural science	4
social, economic and legal subjects	5
library science	3
b) Documentation and literature survey	4
c) Selection systems	5
d) Commercial documents	2
5. Public relations	
a) Written communication	8½
Printing techniques	3
b) Public speaking	3
6. Related subjects	
a) Booktrade and publishing	3
b) The archive	2
c) Patents	2
d) European co-operation	3
e) Standardization	1½
f) Organization of science and scientific research	4

	hours
7. Miscellaneous	
Visits to the Royal Library, the libraries of the Technical University Delft, Agricultural College, Shell, etc.	20½
Discussions on working papers and practical instruction	25
Total	175

Type of training	Part-time course
Conditions of admission	A higher secondary school degree and 4 years of library experience
Are foreign participants allowed	Yes
Conditions of admission	Same as above and sufficient knowledge of the Dutch language
Duration of training	13 months, one day per week
For what kind of work are the students being trained	Librarians in leading functions
Examinations	Oral and written final examinations on main subjects
Degrees or other qualifications granted	Certificate (diploma)
Language of lectures	Dutch
Tuition fees	ƒ 620.--
Number of trainees	15-18 every two years

ADDITIONAL INFORMATION

AMSTERDAM

At the **University of Amsterdam, Faculty of Letters,** there exists a Chair of Library Science which conducts the two-year academic programme for academic staff of learned libraries. During the second year practical work has to be done in at least one large library. Training in library science is intended only for students of a university, holding a university degree, and is at post-graduate level.

Library professional day-schools are planned for Arnhem, Eindhoven, Groningen, Tilburg and The Hague.

NIGERIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

IBADAN

Institute of Librarianship, University of Ibadan,
Ibadan

Director: J. Harris

Year of foundation: 1960

Programme	hours
1. Administration and history of libraries	60
2. Bibliography	30
3. Reference books	30
4. Subject literature	30
5. Assistance to readers	50
6. Cataloguing and classification	60
7. Organization	30
8. Optional special subjects	45

Conditions of admission	a) Graduates with a good B.A. and B.Sc. degree b) Non-graduates with two years' library experience with either - FPE, and one part of Library Association Registration examination, or - two subjects at General Certificate of Education Advanced level, and one part of Registration examination, or - two subjects at General Certificate of Education Advanced level and pass in the "Entrance" examination
Duration of training	One year
For what kind of work are the students being trained	Librarians and documentalists
Degrees or other qualifications granted	University of Ibadan Diploma
Tuition fees	£ 90 per session of three terms
Financial aid for trainees	Carnegie scholarships, normally available only to graduates

NORWAY

The education and training of documentalists and information officers are not organized in Norway. Personnel working in the field are generally self taught or have attended short courses.Others have received in-service training in Norway or have studied abroad on scholarships from the Royal Norwegian Council for Scientific and Industrial Research.

The whole system of documentation and information services and education are under debate at present, and it is expected that radical changes will take place in the future.

PAKISTAN

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

KARACHI

The University of Karachi,
Karachi

Year of foundation of the course: 1962

GRADUATE

Pakistan National Scientific and Technical Documentation Centre (PANSDOC), the FID National Member, co-operates with the University of Karachi in the teaching of students to a Master's degree in library science. The Master of Library Science course includes one complete paper on scientific documentation and information techniques. The students attend lectures and practical work at PANSDOC once a week.

Programme

I. Scientific documentation
  1. Scope of scientific documentation and its relation to librarianship. Techniques and principles
  2. Position and future of scientific documentation and information services in Asian countries
  3. Scientific documentation and economic development
  4. Co-operation in scientific documentation
  5. Possibilities of combining scientific documentation with parallel activities
  6. Role of documentation centres in the exchange of scientific publications
  7. Use of UNESCO coupons in operating documentation services
  8. Selection and training of document procurement personnel
  9. General survey of PANSDOC services
  10. Level of organization for documentation:
      a) international: FID, UNESCO
      b) national: Aslib, etc.
  11. Survey of major scientific and technical documentation centres and special libraries: UK, the Continent, USSR, Japan, India, Pakistan

II. Scientific literature and its search techniques
  1. Historical background. Early scientific societies and their role in the development of scientific literature; 18th and 19th century scientific literature of the Indian Sub-Continent
  2. The place of the periodical in scientific literature; the scientific article and its component parts
  3. Form classification of technical literature:
      a) original sources (unorganized)
      b) secondary sources (organized)
  4. Bibliographical aids in science and technology. Methodical assessment of bibliographical tools in specific fields

5. Procedure for searching the sources of information
6. The bibliographical unit. Methods of setting out references to articles in journals, books, patents, theses, etc.
7. Preparation and presentation of information in bibliographies
8. Organization of translation services - details
9. Actual work of translation. Techniques
10. Typists: recruitment, selection, training
11. Practical: the aspects of the well-organized translation section of PANSDOC in detail

III. Document procurement. Principles and practice

1. Importance of document procurement service and its organization in a documentation centre
2. Procurement of documents from local sources (with special reference to Pakistan)
3. Procurement from foreign sources:
   policies and problems in procuring different types of documents, e.g. papers from periodicals, patents, standard specifications, theses, .research material, conference proceedings, etc. Sources of information and locating tools, etc.
4. Procurement of ready-made translations:
   locating tools and sources of information relating to the availability of ready-made translations, e.g. Translation Index, Translation Monthly, cover-to-cover English translation of Russian scientific journals, etc.
5. Routine procedure in a document procurement section:
   receipt and registration of orders, verification of bibliographical data, identification of documents as to their availability in local and foreign libraries. Processing of orders for the photo-reproduction section, disposal of documents to clients
6. Abbreviation of journal titles
7. Abstracting and indexing
8. Information retrieval:
   definition, basic operations of information retrieval, e.g. recording, storage, identification and dissemination of information of pertinent interest
   various devices and systems of information retrieval:
   a) conventional methods (indexing and classification, e.g. alphabetical subject index, classified index, UDC and faceted classification)
   b) co-ordinate indexing
   c) edge-punched cards, feature or aspect cards (peek-a-boo system) either based on Uniterms, key-words, or thesaurus, etc.
   d) automatic retrieval of information
      - IBM and ICT punched cards
      - electronic computers
      - Rapid Selector
      - Filmorex
9. Programming, input and output collating, coding and decoding

IV. Translation service
organization of the translation service of a documentation centre - particularly of a scientific documentation centre

1. Importance of translation services
2. Translation services in foreign countries: United Kingdom, France, Germany, Netherlands
3. Essentials of a translation service - general: translation work from outside; staff translators, editors plus panel of external part-time translators
4. Training of translators: under a senior experienced translator abroad
5. Translation section library: essential books; dictionaries, reference books of scientific subjects, standard of these books
6. Record system: processing of translations, recording of translations; recording of data on translations and translators, etc.
7. Utilization of the work of a translation service: national service to scientists: technical clients; exchange service with foreign countries, pooling of work; national, international; publications of lists, etc.

V. Document reproduction
   1. Methods of producing and copying documents, including printing
   2. Photographic laboratory
   3. Library applications of (micro)photography
   4. Selection and training of staff
   5. Document reproduction services at PANSDOC

Type of training	Course in scientific documentation and information techniques as a part of library science curriculum
For what kind of work are the students being trained	Information workers, graduate librarians for all types of library
Degrees or other qualifications granted	Master of Library Science
Other data	PANSDOC organizes every year short on-the-job training in documentation for librarians from scientific and non-scientific libraries and government organizations. The period of training depends on the background of the candidate and of the institution to which he belongs

POLAND

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

POZNAN

Podyplomowe Studium Bibliotekoznawstwa przy Uniwersytecie im. Adama Mickiewicza w Poznaniu (Adam Mickiewicz University in Poznań, Post-graduate Study in Library Science),
38-40 Ratajczaka, Poznań

Head: Assistant Prof. Dr. S. Kubiak

Year of foundation: 1968

POST-GRADUATE

Programme	hours
1. Development and organization of science. Selected problems	15
2. Modern culture - selected problems	15
3. Methodology of research in library science	15
4. Outline of history of the book and the library	30
5. Modern printing, book-selling and editing	30
6. Bibliography	60
7. Role and organization of modern libraries	15
8. Acquisition of material	30
9. Classification	30
10. Scientific information and documentation	45
11. Seminar	45

Type of training	Post-graduate study in library science intended for students advanced in studies at various faculties, graduates from higher schools, teachers and librarians
Conditions of admission	Intermediate and final degrees
Duration of training	2 years; 1st year 2 days a month for 6 months, and 10 consecutive days; 2nd year: 2 days a month for 5 months, and 10 consecutive days
For what kind of work are the students being trained	Scientific librarians
Examinations	6 examinations during the study
Degrees or other qualifications granted	Diploma of specialization in library science
Language of lectures	Polish
Tuition fees	Free

POZNAN

Uniwersytet im. Adama Mickiewicza w Poznaniu, Biblioteka Główna, Miedzywydzialowe Studium Bibliotekarstwa (Adam Mickiewicz University in Poznań, Central Library, Interdepartmental Study in Library Science),
38-40 Ratajczaka, Poznań

Head: Assistant Prof. Dr. S. Kubiak

Year of foundation: 1968

GRADUATE

Programme	hours
1. Cataloguing and classification of publications	45
2. Bibliography	90
3. Scientific documentation and information	60
4. Cultural policy of Poland - selected problems	15
5. Library practice - 2 weeks after 1st year of studies, and 2 weeks after 2nd year	

Type of training	Interdepartmental study in library science - lectures on information are included in the library science curricula
Conditions of admission	Students from various faculties are admitted after the 3rd year of studies
Duration of training	2 years
For what kind of work are the students being trained	Subject information specialists and special librarians
Examinations	5 examinations during the studies
Degrees or other qualifications granted	Master of Arts degree in the discipline plus specialization in library science
Language of lectures	Polish
Tuition fees	Free

WARSAW

Uniwersytet Warszawski, Wydzial Filologiczny, Podyplomowe Studium Informacji Naukowej (Warsaw University, Faculty of Philology, Post-graduate Study in Information Science),
Krakowskie Przedmieście 26-28, Warsaw

Head: Prof. Dr. T. Wójcik

Year of foundation: 1969

POST-GRADUATE

Programme	hours
1. Logic	30
2. Science of science	30
3. Linguistics - selected problems	45
4. Foreign languages - selected problems	30
5. Psychology - selected problems	15
6. Sociology - selected problems	15
7. Pedagogics - selected problems	15
8. Mathematics	90
9. Introduction to problems of scientific information	30
10. Modern publishing	15
11. Library science, librarianship and bibliography	105
12. Subject indexing of documents	105
13. Methods of studying users' needs	30
14. Information retrieval systems	45
15. Technical means of information	30
16. Organization and economics in information	30
17. Dissemination of information	30

Type of training	Post-graduate study in information science, evening study (courses)
Conditions of admission	Admitted are students who: - are graduates (Masters degree or an equivalent - know 2 foreign languages (with an active knowledge of one of them) - were employed for at least 2 years by a scientific or research institution in their special subject - are sponsored by their institutions
Are foreign participants allowed	Yes
Conditions of admission	Same as for Polish students
Duration of training	2 years; study takes place in the evenings and students attend 3-4 times a week
For what kind of work are the students being trained	Information scientists, lecturers in the field of information science, subject information specialists
Examinations	Examinations during the course and final examination
Degrees or other qualifications granted	Certificate
Language of lectures	Polish
Tuition fees	Free

WARSAW

Uniwersytet Warszawski, Wydzial Filologiczny, Katedra Bibliotekoznawstwa
(Warsaw University, Faculty of Philology, Chair of Library Science),
Krakowskie Przedmieście 26-28, Warsaw

Professor: Dr. A. Czekajewska - Jedrusik

Year of foundation of the courses on information sciences: 1962
The establishment of an Institute for Library Science and Information Science is being planned.

GRADUATE

Programme	hours
1. Logic	60
2. Political economy	90
3. History of Poland against the background of general history - selected problems	90
4. Main problems of Marxist philosophy and Marxist theory of development of the society	180
5. Introduction to library science	30
6. History of books and libraries	180
7. Library science and librarianship	255
8. Bibliography	255
9. Main areas of science; organization of sciences and scientific writing:	
a) humanities	105
b) natural and applied sciences	105
10. History of literature in general - selected problems	90
11. Contemporary literature	60
12. Selected problems of modern culture	60
13. Assistance to readers	150
14. Problems, methodology and organization of research in palaeography	30
15. Foreign language (I)	120
16. Foreign language (II)	120
17. Specialization (one of the following):	
- Organization of libraries	120
a) general	
b) special	
c) national and university	
- Publishing and book selling	120
- Scientific and technical information and documentation	210

Programme of documentation

1. Outline of the theory and technique of scientific information and documentation
   a) Fundamental features of the flow of information. General characteristics of scientific and technological activities. Characteristics of information activities

   b) Documentation and information. Role of information in the development of science and technology. Principal objects of information

2. Scientific and technical literature
   - a) Types of written document and their information value (up-to-dateness)
   - b) Other sources of information, their form and significance in information

3. Fundamental knowledge of methods of document processing
   - a) Analysis of the text of a document
   - b) Forms of documentation processing
   - c) Methods and forms of preparing translations

4. Adpating information to the needs of various groups of users
   - a) Types of user and characteristics of their needs
   - b) Kinds of information from the viewpoint of source and type of user

5. Structure of the descriptive language
   - a) Structural studies. Formalized and artificial languages
   - b) Indexing methods. Index systems. Subject entries and denominators, relations between concepts
   - c) Defects and merits of systems from the viewpoint of usefulness

6. Elements of classification theory
   - a) Universal systems and analysis of their structure (Bliss, UDC, CC and others)
   - b) Universal Decimal Classification, its characteristics and structure, trends of its development and present state of research
   - c) Method of classification according to UDC
   - d) Special classifications and their structure

7. General knowledge of mechanization and automation of the information process
   - a) Linguistic problems, technical problems and their correlation
   - b) Principles of mechanization and automation of information. Small-scale mechanization. Information retrieval systems. Logical systems. Mechanical translation. Information processing

Organization problems of information

1. Organizational systems of scientific and technical information

2. International co-operation in information
   - International Federation for Documentation (FID)
   - International Association of Documentalists and Information Officers (AID)
   - ASLIB
   - International Organization for Standardization (ISO)
   - ISO/TC 46 "Documentation"
   - UNESCO

3. Historical outline of the development of information activities in Poland

4. Organizational structure of information services in Poland
   a) Centres of information
      - industrial centres
      - branch centres
      - centres in ministries
   b) Central Institute for Scientific, Technical and Economic Information
   c) Special libraries as a fundamental component part of an information centre
   d) Organization of information service in the Polish Academy of Sciences
   e) Organization of information service in the Ministry of Higher Education
   f) Organization of information service in the Ministry of Health and Social Welfare
   g) Co-operation among information centres

5. Planning information activities
   a) Connection between plans for information centres and for the development of technology and economy
   b) Plans of information activities as a component part of the plan of technical development

6. Financing information activities

7. Employment. Features of the profession, qualifications, training conditions, academic degrees

8. Survey of legislation concerning scientific, technical and economic information

9. Co-operation between the information services and scientific, technical and professional organizations

10. Co-operation among information services of the socialist countries

11. Public relations. Training of users of information

12. Economic effectiveness of information activities

Reprography

1. Historical survey of reprographic techniques

2. Needs of information centres

3. Modern printing and methods of rapid duplication of documents
   a) Small-scale polygraphy, photo-reproduction, xerography, etc.
   b) Modern apparatus and technical equipment
   c) Material, descriptions, characteristics, etc.

4. Equipping information centres with printing, photoreproduction, and other apparatus

5. Organizing a centre for small-scale printing and a centre for photoreproduction in the information centre
    a) Organization of the work and utilizing the equipment
    b) Co-operation between printing services
6. Economic aspects of reprography in information centres
    a) Analysis of costs
    b) Calculating the cost of services
7. Practical work in small-scale printing centre with photographic laboratory

Notes:

1. The following practical training is obligatory:

- After 1st semester	- Acquisition of material	1 week
- After 2nd semester	- Alpbabetical catalogue	4 weeks
- After 4th semester	- Subject catalogue	4 weeks
- After 6th semester	- Information work in a library	4 weeks
- After 7th semester	- Practical training according to chosen specialization	2 weeks
	Total time of practical training	15 weeks

2. During the 1st, 2nd and 3rd year of studies 3-days visits are planned to libraries or other institutions or organizations (paper mills, printing works, information centres, publishing houses, etc.)

Type of training	Lectures on scientific information are included in the programme of studies of library science; Scientific information is an optional special subject
Conditions of admission	Graduate diploma from a secondary school
Are foreign participants allowed	Yes
Conditions of admission	Same as for Polish students
Duration of training	4 years
For what kind of work are the students being trained	Librarians of all types of library and information workers
Examinations	Entrance, during the course and Master's degree examination as final
Degrees or other qualifications granted	Magister Bibliotekoznawstwa (Master of Library Science) In the proposed new structure, also Magister Informacji Naukowej (Master of Information Science)
Language of lectures	Polish

Tuition fees	Free
Financial aid for trainees	State subsistence grants for outstanding students
Number of trainees	About 25 graduates yearly. Some 10 persons of them with specialization in scientific information

WARSAW

Pomaturalne Studium Dokumentacji i Informacji Technicznej i Ekonomicznej
(Professional College in Documentation and Technical and Economic Information),
Zeromskiego 81, Warsaw

Director: Mrs A. Tabor

Year of foundation: 1958
Until 1969 the College existed under the name of the State School for Scientific and Technical Documentation

NON-GRADUATE

Programme	hours
1. Fundamentals of political sciences	240
2. Sociology, psychology, organization of work - selected problems	240
3. Russian	480
4. A second foreign language	960
5. Political economy	720
6. Selected legal problems	480
7. Technical drawing	360
8. Organization of national economy	720
9. Archive studies	360
10. Selected problems in technology	840
11. Technical and economic information	240
12. Classification of documents	480
13. Collecting and processing of documents	600
14. Dissemination of information	600
15. Typing	240
16. Practical training (practical training of 4 weeks is obligatory after the 2nd and 3rd semesters)	
17. Physical training	720

Type of training	Professional study in documentation and technical and economic information
Conditions of admission	Completion of a secondary school and entrance examination
Are foreign participants allowed	No
Duration of training	2 years (4 semesters). Full-time

For what kind of work are the students being trained	Assistants in information centres
Examinations	Entrance, during the course and final examinations
Degrees or other qualifications granted	Technician-documentalist
Language of lectures	Polish
Tuition fees	Free

WARSAW

Centralny Instytut Informacji Naukowo-Technicznej i Ekonomicznej (CIINTE) (Central Institute for Scientific, Technical and Economic Information),
Al. Niepodległości 188, Warsaw

Director: W. Piróg
Head of Training Department: Prof. Dr. J. Marchlewska

Year of foundation of the course: 1950

The Central Institute for Scientific, Technical and Economic Information is the leading organization for professional education and training in the field of information. The responsibilities of the Institute include:

a) preparation of programmes, methods, training material and instructional aids for courses, seminars, etc., held by CIINTE and other organizations, and aimed at improving the qualifications of information workers;
b) education and training of lecturers, instructors and other specialists with particular reference to programmes and methods of training in the field of scientific, technical and economic information;
c) co-ordination of programmes and methods for the continuous education and training of information workers, giving opinions on drafts of courses to be organized by various ministries and branch centres, and giving expert assistance on their behalf;
d) methodical and direct assistance to centres, organizations and institutions engaged in training and advancement of information workers.

A. Basic course for information workers

Programme	hours
1. Introduction to information problems	2
2. Selection, collection and storage of documents	12
3. Processing of documents	16
4. Classification of documents (UDC included)	20
5. Information retrieval	2
6. Users' information needs	2
7. Availability of documents	2
8. Techniques for disseminating information	6

	hours
9. Application of technical means in information activities	4
10. Edge-notched cards	8
11. Planning and reporting in an information centre	2
12. Information network in Poland	3
13. Visits to a branch and an industrial centre	10

Type of training	Basic course in information science
Conditions of admission	The course can be attended by workers of industrial, branch and department information centres, and librarians of special libraries (as a rule applications for the course come from the employers), who have: a) higher education or a secondary one in the field in which they work, b) 2-years professional training, c) command of one foreign language
Are foreign participants allowed	Yes
Duration of training	12 days
For what kind of work are the students being trained	Workers for information centres and special libraries
Examinations	Final examinations
Degrees or other qualifications granted	Certificate
Language of lectures	Polish
Tuition fees	Free; textbooks to be bought
Number of trainees	25 to 30 people in each course, about 350 persons yearly
Other data	The Training Department of CIINTE organizes basic courses in Warszawa, Katowice and Poznań

B. Advanced course for information workers

Year of foundation of the course: 1967

Programme

	hours
1. Trends and patterns of development of scientific, technical and economic information	12
2. Techniques of intellectual activities	3
3. Science of science	2
4. Role of information in technological progress	6
5. Organization of nation-wide information networks	12
6. International co-operation in the field of information	6

	hours
7. Co-operation in the field of scientific, technical and economic information	6
8. Legal problems in information	10
9. Organization of information activities and management technique	5
10. Sources of information: document collections	12
11. Collecting and classifying documents (UDC included)	21
12. Processing of documents	
13. Dissemination of information	
a) written	9
b) unwritten	5
14. Information card files (punched cards, peek-a-boo)	18
15. Reprography	20
16. Printing and publishing - selected techniques	8
17. Categories of information users, investigation of needs, subject planning according to needs	7

Type of training	Extra-mural advanced course for information workers
Conditions of admission	Information workers who have - completed the basic course organized by CIINTE, or equivalent one, and have been employed for at least 2 years of which one year must be in information work, - are graduates from a higher school or a secondary school, - have a good command of at least 2 foreign languages (one language active and one passive command)
Are foreign participants allowed	Yes
Duration of training	18 months, 1,200 hrs., i.e. 200 hrs of lectures and exercises and 1,000 hrs of home-work
For what kind of work are the students being trained	Subject information specialists, scientific and technical librarians, information workers
Examinations	Entrance oral examination obligatory for students who have not attended the basic course; examinations during the training; final examination
Degrees or other qualifications granted	Certificate
Language of lectures	Polish
Tuition fees	Free textbooks to be bought, expenses are met by the employers

Number of trainees	About 250 per course (from all over the country)
Other data	CIINTE organizes also courses lasting 3-6 days, conferences of 1-3 days, and seminars for information workers, heads of special libraries, and particularly for librarians employed by libraries attached to information centres

Subjects of courses and conferences:

1. Selected problems in special librarianship and scientific, technical and economic information (6-days course)
2. Patent documentation and information (2-days conference)
3. Standards documentation and information (2-days conference)
4. Documentation and information of trade literature (1-day conference)
5. UDC as means for systematization of press photographic collection (40 hrs course, extra-mural, 2 times 2 hours in a week during 10 weeks)
6. Collecting information material in a technical library, and circulating periodicals (2-days conference)
7. Dissemination of unpublished information
8. Reprography - selected problems
9. Mechanical recording and retrieval of information in the Institute of Zootechnics
10. Introduction to mechanization and automation of information process
11. Mechanization of information retrieval
12. Automation in information processing
13. Organization and keeping of edge-notched card files

WARSAW

Polska Akademia Nauk - Ośrodek Dokumentacji i Informacji Naukowej oraz Ministerstwo Oświaty i Szkolnictwa Wyzszego (Polish Academy of Sciences - Documentation and Scientific Information Centre, and the Ministry of Education and Higher Schools)
Nowy Swiat 72, Warsaw

Director: Dr. A. Wysocki
Year of foundation of the course: 1967

A. General course in scientific information

Programme	hours
1. Organization of information in Poland and abroad	4
2. Sources and types of information	4
3. Collecting of information	4
4. Librarianship and library science	4
5. Documents, their kinds, characteristics and principles for cataloguing	6

	hours
6. Bibliography	7
7. Theory of classification of science	3
8. Classification of documents	6
9. Universal Decimal Classification	6
10. Scientific organization of the keeping of archives - fundamental problems	8
11. Introduction to mechanization and automation of information processing	4

Type of training	General course in scientific information
Conditions of admission	a) higher education b) exceptionally secondary one, and many years' experience in information work
Are foreign participants allowed	No
Duration of training	9 days, full-time
For what kind of work are the students being trained	Information workers
Examinations	None
Degrees or other qualifications granted	Certificate
Language of lectures	Polish, if a foreign lecturer is engaged: Russian or English
Tuition fees	Free; textbooks to be bought
Number of trainees	56
Other data	Other courses include 1) 3-days course on UDC 2) 4-days course: "Fundamental problems of scientific information in the fields of biological, agricultural and forestry, and medical sciences", 3) 3-days course: "Fundamental problems of scientific information in the fields of mathematical, physical and technical sciences"

B. Advanced course in scientific information

Programme

	hours
1. Scientific information: concept, subject and methods	4
2. Modern problems in information	4
3. Science of science	9

	hours
4. Linguistic problems in scientific information	8
5. Logic and classification of sciences	15
6. Organization of information problems	4
7. Economic effectiveness of information	2
8. Copyright	6
9. Classification systems	2
10. Librarianship, library science	15
11. Descriptors, thesauri	8
12. Modern problems in classification	10
13. Information card files	10
14. Processing of documents, selection	20
15. Information publications	14
16. Mechanization and automation of information processes	44
17. Social psychology, categories of users, methods of studying users'needs, subject planning according to needs	22

Type of training	Advanced course, part-time
Conditions of admission	Workers from the Polish Academy of Sciences and the Ministry of Education and Higher Schools who are graduated from higher schools and employed in the field of scientific information. In exceptional circumstances persons may also be admitted without having completed higher studies but who have several years' practical experience
Are foreign participants allowed	No
Duration of training	2 years, 268 hours, 45 days of tuition in cycles of 7 to 8 days
For what kind of work are the students being trained	Subject information specialists, special librarians and information workers
Examinations	No obligatory examinations. Students for the title of a "Diplomated Documentalist" have to pass an examination before a special State Examining Board
Degrees or other wualifications granted	None
Language of lectures	Polish
Tuition fees	Free; textbooks to be bought
Number of trainees	90

WROCLAW

Uniwersytet Wroclawski im. Boleslawa Bieruta, Wydzial Filologiczny, Katedra Bibiotekoznawstwa (Wroclaw B. Bierut University, Faculty of Philology, Chair of Library Science),
Plac Uniwersytecki 1, Wroclaw

Professor: Dr. K. Glombiowski

Programme is the same as at the University of Warsaw, but there is no specialization in information science.

All students of the 4th year of studies are obliged to attend 60 hours of lectures: "Outline of scientific information and documentation problems" and pass an examination.

All other data as for the University of Warsaw.

GRADUATE

Programme

A. Information

1. An outline of information work as an activity
2. Elements of information work as part of traditional librarianship
3. Information activities and the profession of librarian
4. Factors influencing an increased demand for scientific, technical and economic information
5. The information activities of libraries and kinds of information
6. Organization of the information services in Poland and abroad
7. The role of information in a planned economy
8. Co-operation and co-ordination of library work in information activities
9. Using technical methods in information work

B. Documentation

1. The concept of "documentation" and its relation to "information"
2. Kinds of documents
3. Collecting, collating and disseminating documents in certain fields of knowledge

Since 1967 there is also a 5-years extra-mural study course in Library Science at the Wroclaw University, including 20 hours of lectures on an "Outline of problems in scientific information and documentation" in the 4th year.

PORTUGAL

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

LISBON

Centro de Documentação Científica Ultramarina (The Centre of Scientific Documentation for Overseas Territories),
Av. Ilhha da Madeira (Restelo), Lisbon 3

Director: Dr. Z. Ferreira Paulo

NON-GRADUATE

Prepatory course for documentalists
(The course has been held in Protugal and Brazil)

Programme

1. Introduction
2. Documentation
   - a) history
   - b) elementary concepts
   - c) scientific documentation, with some examples from physics, chemistry; natural sciences, economy, agriculture, engineering, medicine
   - d) economics of information
   - e) terminology
   - f) scope and purpose
   - g) co-operation in documentation
     - internal
     - external
     - international
   - h) co-ordination
     - centralized
     - directed
     - spontaneous
   - i) standardization of scientific management
   - j) organization of documentation
     - at home
     - abroad
     - international
   - k) flow of documentation
   - l) centralization or decentralization advantages and disadvantages
   - m) documentation centres and their organization
     - internal regulations
     - activity
     - funtional connections
     - technical equipment
     - scientific, technical and auxiliary personnel
   - n) elementary differences between an information centre and a library
   - o) types of information centre

   - p) documentation and information (scientific, etc.)
     - absolute and relative scope
     - basic purposes and means
   - q) evaluating the output of information centres
   - r) economics of information centres

3. Documentation and information documents
   - a) cards
   - b) analyses
   - c) information without supplying material
   - d) card index
   - e) archives
4. Methods and techniques of documentation
   - a) acquisition
   - b) selection
   - c) recording
   - d) making an inventory
   - e) standardization (standards in documentation)
   - f) bibliography
   - g) classification
   - h) cataloguing and catalogues
   - i) reproduction
   - j) dissemination
   - k) exchange
5. Scientific and technical information
   - a) organization of information
   - b) co-ordination and co-operation
6. Methodology of scientific information
   - a) planning
   - b) retrieval of information
   - c) selection
   - d) translations
   - e) documentation analysis
   - f) circulation of documents
   - g) informational funtions
   - h) mechanization of the information process
7. The technique of scientific information
8. Documentation and scientific information as instruments of progress

Type of training	Preparatory course for documentalists
Duration of training	Four months
For what kind of work are the students being trained	Documentalists
Language of lectures	Portuguese

Course for documentalists

Programme

. Theoretical sessions. Lectures
   1. Curriculum for assistant documentalists
   2. Classification

3. Bibliography
   a) bibliographical research
   b) methodology
   c) preparation of bibliographies
   d) bibliographical bulletins
   e) indexing
4. Abstracting services. Abstracts bulletins
5. Standardization of documentation
6. Information and documentation planning
7. Scientific translation and applied linguistics in the communication of information. Linguistic problems
8. Preparation and editing of reference guides, information bulletins, abstracts, etc.
9. Structure and functioning of a documentation service

II. Practical work

III. Visits, exhibitions, audio-visual sessions and lectures

Course for assistant-documentalists

Programme

I. Theoretical sessions. Lectures
   1. The Centro de Documentação Científica Ultramarina and other documentation services
      a) legal basis of organization
      b) structure and functions; diagrams
      c) publication
   2. Documentation work
      a) types of document
      b) acquisition
      c) filing, recording
      d) cataloguing; documentation cards; files
   3. Bibliography
   4. Union catalogues
   5. Lending
   6. Reference books

II. Practical work

III. Visits, exhibitions, audio-visual sessions and lectures

Type of training	Course for documentalists and assistant-documentalists (on-the-job training)
Conditions of admission	Participants of the course for documentalists should be university graduates
Duration of training	3 months
Degrees or other qualifications granted	Diploma

SPECIAL

Introductory course to the Universal Decimal Classification

(the course has been held in Portugal, Brazil, Angola and Mozambique)

Programme

1. Introduction to the classification of documents
   a) characteristics of some systems
   b) advantages and disadvantages of subject classification
   c) techniques of subject classification
   d) some basic principles of the practical use of subject classification
2. Chief principles of using the UDC system
   a) history of UDC
   b) principles of the structure of the system
   c) using UDC
   d) UDC tables
3. Definitions and symbols
   decimal symbols and their use
4. Structure of the Universal Decimal Classification
   a) citation order (structure of composite decimal symbols)
   b) filing order (structure of the card index)
5. Use of the UDC system
   a) integral use
   b) partial use
   c) UDC users in Portugal
6. Practical principles of using UDC tables
   a) examples of UDC illustrating the practical use of subject classification
   b) rules limiting the multiplicity of solutions for the construction of a UDC number
   c) analysis of improper methods of using UDC tables
7. Criticism of the UDC system
   a) basic criticism of the system
   b) specific criticism of certain sections of the principal and auxiliary tables
8. Present problems of the UDC system
   a) difficulties and limitations
   b) differences and anomalies
   c) the evolution of UDC
   d) methods of procedure
9. Future of UDC
   a) increasing criticism and the need of a fundamental alteration of the system in accordance with modern concepts in humanities and the social, exact and applied sciences
   b) deliberations on some documents, facts and commentaries
   c) immediate decisions taken by FID
   d) actual state of the problem
   e) synthesis of the criticism of "The Future of UDC"
10. Modern trends of the evolution of the classification of documents
    a) special classifications

- b) mechanization of documentation and information and its use in the classification of documents
- c) basic stages in the development of the classification of documents

Of the 24 lectures 16 are theoretical and 8 connected with practical work.

Type of training	Special course on classification
Duration of training	Lectures are held 3 times a week for a period of 2 months
For what kind of work are the students being trained	Documentalists
Language of lectures	Portuguese

SPECIAL

Course on organization of documentation and scientific information
(the course has been held in Portugal and Brazil)

Programme

1. Methods of documentation
   - a) fundamental concepts and their use in science and technology
   - b) international institutions
   - c) national institutions
   - d) co-operation
   - e) co-ordination
2. Fields of documentation
   - a) bibliography
   - b) standardization
   - c) classification
   - d) mechanization
   - e) automation
   - f) preparing scientific works
3. Training of documentalists
   international and national institutions
4. Organization of documentation centres and scientific information services
   - a) use: in teaching, scientific research, in industry
   - b) libraries, card indexes, map collections, photographic and gramophone record collections
5. Methodology
   - a) planning, organizational diagrams, work timetables
   - b) Methods of research, information and dissemination
   - c) international and national information
   - d) studies on output, efficiency and economics of information
6. Documentation techniques
   - a) bibliographical searching
   - b) analysis of documentation
   - c) classification (UDC system)
   - d) selection

- e) reproduction
- f) dissemination
- g) exchange
- h) standardization in documentation

Type of training	Special course on organization of documentation
Duration of training	Classes are held 3 times a week for one month
For what kind of work are the students being trained	Candidates for scientists, lecturers, special librarians
Examinations	None
Degrees or other qualifications granted	Certificate of attendance
Language of lectures	Portuguese

SPECIAL

Course on standardization of documentation

(the course has been held in Portugal and Brazil)

Programme

1. Introduction
2. History, structure and functioning of some standardization institutions
   - a) international
   - b) foreign (mainly Brazil)
   - c) Portuguese
3. Conferences and co-ordination in standardization
   - a) international
   - b) Portuguese-Brazilian
   - c) in Portugal
4. Operational phases and specific terminology of standardization
   - a) ISO/TC 46 standards
   - b) standards of the Brazilian Documentation Commission
   - c) CT 7 standards
5. Structure and technical problems of the Commission of Standardization of documents
   - a) ISO/TC 46 (international)
   - b) the Brazilian Documentation Commission
   - c) CT 7 (Portuguese)
6. Types of standard
7. Standard documents of interest in documentation. Specifications
   - a) international recommendations and projects of recommendations
   - b) foreign
   - c) Portuguese
   - d) equivalents (international, Brazilian and Portuguese)
8. Subjects of documentation standards
   - a) critical study of subjects
   - b) classification of standards

- c) study of the structure of analytical indexes (key-words)

9. Comparative study of the principal documentation standards
   - a) bibliographic cards, standardization cards, etc. (formats), recording of bibliographic cards
   - b) publications (documents), a general index, numeration
   - c) bibliographic references
   - d) periodical publications; format A4; conventional abbreviations of titles; bibliographic reference; general index; presentation of titles
   - e) microcopies; terminology and definitions; dimensions; scales (of reduction)
10. Methods of dissemination of standards
    - a) meetings, operational commissions, contact with the public
    - b) periodicals
    - c) standards
    - d) files of cards for documentation standards
    - e) catalogues of standards
11. Present state of work in the field of standardizing documents
    - a) on an international scale
      - ISO
      - UNESCO - operational groups
      - national institutions not affiliated to ISO
    - b) in Brazil
    - c) in Portugal
12. Subjects of research. Programming standardization of documents
13. Other aspects of standardization in the organization of intellectual work
    - a) statistics and standardization
    - b) nomenclature in bibliography
    - c) Universal Decimal Classification (UDC) as a standard
    - d) public relations and the organization of intellectual work
14. Present problems of standardization of documentation
    - a) at the internlonal level: a real co-ordination of various fields of standardization; greater dissemination of standardization at all levels and fields of intellectual work
    - b) at the Portuguese level: standardization and freedom of thought; dangers connected with overstandardizing or with premature standardization; development of work in standardization and the results of standardization; shortening the operational phases; programming for short periods; adaptation to scientific activities, solutions and material already confirmed in technical and industrial activities; the Brazilian-Portuguese operational group in the field of standard terminology

Type of training	Special course on standardization
Conditions of admission	University diploma
Duration of training	Classes are held twice a week during two months

For what kind of work are the students being trained	Documentalists-engineers, documentalists-agronomists, documentalists-geologists, documentalists-physicians, documentalists-physicists, etc.
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Portuguese
Number of trainees	70 persons

ROMANIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BUCAREST

Institutul Central de Documentare Tehnică - IDT (The Central Institute for Technical Documentation),
Str. Cosmonautilor 27-29, Bucarest

Director: Mr. V. Tărăboi

Year of foundation of the course: 1955

The Central Institute for Technical Documentation (IDT) organizes the further education of medium- and high-level staff of technical information and documentation departments in institutes and industrial enterprises and technical libraries.

The training courses last 4-6 days and include theoretical lessons and seminars.

Types of course organized by IDT in 1968:

A. three types of course designed for the further training of documentation engineers;
B. a special course for patent documentation engineers;
C. two types of further training course for technical librarians.

Programmes

A

Introduction to technical and scientific information and documentation

1. Method and organization problems of the information and documentation activities within an enterprise
2. Documentary media
3. Identification of sources and acquisition of documentary materials
4. Data processing
5. Current awareness services and information for executives
6. Subject information
7. Organized study of publications
8. Organization and functioning of a technical library
9. Bibliography
10. Introduction to the Universal Decimal Classification
11. Liaison within an enterprise

Seminars

Modern methods in information and documentation

1. Theory of technical and scientific information
2. Secondary sources of information
3. Identification and use of documents of restricted circulation
4. Document indexing
5. Co-ordinate indexing
6. Improvements in the Universal Decimal Classification

7. Abstracting
8. Documentation regarding patent literature
9. Classification systems of patents
10. Equipment used in information and documentation. Reprography and duplication
11. Storage and retrieval by computers. Component parts, functioning, programming (optional)

Seminars

Basis of information and documentation

1. Method and organization problems in information and documentation (introductory lesson)
2. Organization of technical and scientific information and documentation, at home and abroad
3. Role and organization of technical libraries
4. Sources of information
5. Documentary media
6. Identification and acquisition of documentary materials
7. Identification, acquisition and use of documentary materials of restricted circulation
8. Universal Decimal Classification
9. Data processing (analysis of the needs of information, selection processing forms)
10. Bibliographical work
11. Analytical processing. Abstracting
12. Preparation of reviews
13. Current awareness services [illegible]
14. Organized survey of publications
15. Subject information
16. Documentation regarding patent literature
17. Classification systems of patents
18. Mechanization and automation applied to information and documentation
19. Reprography and duplicating machines and equipment

Seminars

SPECIAL B

Information and documentation in patent literature

1. Utilization of patent literature in documentation problems of applied research and technical development
2. Identification and acquisition of patents
3. Classification systems of patents
4. Organization of a patent collection. Cataloguing of patents
5. Retrospective searching of patent literature
6. Defining novelty and progress in examining an invention
7. Patent legislation
8. Juridical problems occurring in drafting claims. Protection of patents. Exploitation of patents
9. Checking of the validity of the patents concerning installations or products

Seminars

C

Introductory course for technical librarians

1. Technical libraries. Basic documents. Functions
2. Documentary media in a technical library
3. Growth of the library stock
4. Stock maintenance
5. Filing of documents on the shelves
6. Rules for catalogue entries
7. Library catalogues
8. a) Bibliography
   b) Readers' services
9. Universal Decimal Classification
10. Documentation methods

Seminars

Advanced course for technical librarians

1. Library catalogues
2. Secondary information sources: structure, utilization
3. Bibliographical work
4. Active information
5. Universal Decimal Classification
6. Publicity of technical literature within institutions and enterprises

Seminars

Type of training	Short further training courses
Conditions of admission	A and B courses can be attended only by engineers and technicians The C course can be attended by graduates working in a technical library
Duration of training	4-6 days
For what kind of work are the students being trained	Documentation engineers and technical librarians
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Romanian
Tuition fees	Charges are met by the enterprises whose engineers and librarians attend the courses
Number of trainees	In 1968 the courses were attended by 570 engineers and 200 librarians

Plans for other types of course in 1968-1970

Long-term courses for documentation engineers are envisaged for 1969-1970.

SENEGAL

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

DAKAR

Centre Régional de Formation de Bibliothécaires (Regional Centre of Training of Librarians, University of Dakar),
B.P. 2287 (Mission UNESCO), Dakar

Year of foundation: 1962

NON-GRADUATE

Programme	hours
1. Organization and administration of libraries	60
2. History and techniques of the book	36
3. Bibliography	56
4. Cataloguing	24
5. Techniques of teaching and technique of documentation	24
6. Basic education	10
7. Typing	24

Type of training	Courses in library science
Conditions of admission	Baccalauréat and at least 3 years of practical work in a library
Are foreign participants allowed	Yes, young girls and boys speaking French, from tropical African countries
Duration of training	One year
For what kind of work are the students being trained	Librarians
Degrees or other qualifications granted	Certificat d'aptitude à la profession de bibliothécaire

SOUTH AFRICA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

No courses are run in South Africa in documentation and information, but the subject is included in library training courses. There are eleven universities in the Republic providing library training, which includes courses in documentation. Correspondence courses are also conducted by the University of South Africa in Pretoria.

BLOEMFONTEIN

Department of Librarianship, University of the Orange Free State,
P.O. Box 339, Bloemfontein, OFS

DURBAN

Department of Librarianship, University College,
Salisbury Island, Durban, Natal

RONDEBOSCH

School of Librarianship, University of Cape Town,
Rondebosch, Cape Province

FORT HARE

Department of Librarianship, University College of Fort Hare,
Fort Hare, Cape Province

GRAHAMSTOWN

Department of Librarianship, Rhodes University,
Grahamstown

JOHANNESBURG

Department of Librarianship, University of Witwatersrand,
Jan Smuts Avenue, Johannesburg, Transvaal

KASSELSVLEI

Department of Librarianship,University College of the Western Cape,
Private Bag, Kasselsvlei, Cape Province

POTCHEFSTROOM

Department of Librarianship, Potchefstroom University for Christian Higher Education,
Potchefstroom, Transvaal

PRETORIA

Department of Librarianship, University of Pretoria,
Pretoria, Transvaal

PRETORIA

Department of Librarianship and Bibliography, University of South Africa,
P.O. Box 392, Pretoria, Transvaal

STELLENBOSCH

Department of Librarianship, University of Stellenbosch,
Stellenbosch, Cape Province

Programme

1. Administration of libraries and scope of activities
   a) history of the book and the library
   b) analytical, descriptive and historical bibliography
   c) cataloguing
   d) classification (UDC, LC, Brown, Ranganathan, Bliss)
   e) principles of book selection
   f) information activities
   g) administrative practice
   h) storage
2. Documentation
   a) modern methods of information retrieval
   b) reference work
   c) studies on reading
3. Scientific information service
   a) types of library: school, special, etc.
   b) specialization in making collections in special fields

Type of training	Academic study in library science - documentation is included in the curricula
Conditions of admission	Leaving certificate of a secondary school or a certificate of studies completed at a university (Bachelor's degree)
Duration of training	1-4 years, depending on the institution where the course is held
For what kind of work are the students being trained	Librarians, special librarians, documentalists
Examinations	During the period of study and at the end of each academic year

Degrees or other qualifications granted	The following qualifications are obtained on qualifying, according to the course followed: Diplomas: 1. Lower Diploma (one or two years after high school) 2. Higher Diploma (and degree (Bibl.)) (one year professional course after a three-year academic degree) 3. School Library Diploma Degrees: 1. Bachelor (3 or 4 years combined academic and professional course) 2. Hons. degree (Bibl.) 3. M.A. (Bibl.) 4. Dr. Phil.
Language of lectures	English and/or Afrikaans
Tuition fees	R 125 - R 500
Number of trainees	About 40 graduates per annum
Other data	The South African Library Association has latterly made provision for a measure of specialization in particular types of literature (e.g. medicine, economics, Africana) and in library administration (e.g. university and special libraries or school and children's libraries)

SPAIN

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

MADRID

Escuela de Documentalistas (School for Documentalists),
Avenida Calvo Sotelo 22, Madrid 1

Director: Dr. L.S. Belda

Year of foundation of the School: 1953

POST-GRADUATE and NON-GRADUATE

Programme - upper grade	hours/week
1. Cataloguing	3
2. Classification	3
3. General library science	3
4. General bibliography	2
5. History of books and libraries	2
6. Special documents	2
7. Special bibliography	3
8. Special library science	3
9. Documentation	3
10. Archives	2
Visits to documentation centres and libraries, and practical work	4

Programme - lower grade	hours/week
1. Principles of cataloguing	3
2. Principles of classification	3
3. Principles of documentation	3
4. Principles of archives	3
5. Principles of library science	3
6. Summary of history and technique of documents	3
7. Administrative archive in the enterprise	3
8. Principles of general bibliography and reference	3
9. Administration and legislation	3
Visits to documentation centres and practical work	3

Type of training	Professional school of documentation
Conditions of admission	Upper grade - university graduate Lower grade - graduates from high school
Are foreign participants allowed	Yes
Conditions of admission	Same as for Spanish
Duration of training	Upper grade - one year Lower grade - two years

For what kind of work are the students being trained	Documentalist, librarian, information scientist
Examinations	Entrance and final examinations are compulsory
Degrees or other qualifications granted	Upper grade - Documentalista Lower grade - Ayudante de Documentación
Language of lectures	Spanish
Tuition fees	1000 pesetas
Number of trainees	80 per year

MADRID

Instituto Nacional de Racionalización del Trabajo (National Institute for Scientific Management),
Serrano 150, Madrid

Director: Dr. F. de la Sierra

Year of foundation of the course: 1960

SPECIAL

Course on organization of administrative work in the enterprise

Programme

1. Simplification and improvement of documentation
2. Structure and organization of enterprise
3. Psychology of enterprise
4. Documentation and information in the enterprise
5. Work safety, environment, public relation
6. Planning and preparation of administrative work
7. Evaluation and division of administrative work
8. Standardization and control of documents
9. Control of management
10. Proper management
11. Statistics and analysis of statistical data
12. Archives, correspondence, typewriting
13. Automation of administrative work

Type of training	Course on organization of administrative work; lectures on documentation are included in the programme
Duration of training	3 months

For what kind of work are the students being trained	Managers
Examinations	None
Degrees or other qualifications granted	A diploma
Language of lectures	Spanish
Tuition fees	10,000 pesetas
Number of trainees	25

SWEDEN

The Swedish Society for Technical Documentation (TLS) is responsible for regular training in the documentation field.

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

STOCKHOLM

Tekniska Litteratursällskapet - TLS (The Swedish Society for Technical Documentation),
Box 5073, 102 42 Stockholm 5

The Society arranges short courses of two weeks for personnel in documentation centres and special libraries. TLS has arranged about 30 courses of this type. The courses are arranged at various places in Sweden, mainly in collaboration with large libraries. The number of students in the courses is generally about 30.

TLS conducts its training activity on a non-profit basis. The applicants for the courses represent a variety of qualifications from secondary school to university education. The programmes of the courses can be divided into three groups:

A. courses for librarians and documentalists, mainly held as symposia, where each participant presents a paper on a special subject ending up with a general discussion;

B. courses for executive staff (for programme, see below);

C. special courses, for instance on data processing in libraries and on chemical documentation.

Programme - for courses B

Type I

1. International and Scandinavian co-operation
2. Acquisition of not easily available information
3. Reference service. Documentation service
4. Modern documentation methods
5. Coordinated indexing
6. Technical aids
7. Universal Decimal Classification
8. Bibliography:
   a) general
   b) biology, medicine, physics
   c) construction, electrical engineering
   d) industrial economy and organization
   e) chemistry, chemical industry
   f) engineering, material

Type II

1. Cataloguing
2. Universal Decimal Classification

3. Library service routines:
   a) loan service
   b) contact with other libraries
   c) accessioning and circulation of journals
   d) bibliographies
   e) reference books

A special commission is preparing a proposal to the Government on the training of librarians, archivists and documentalists. The training of clerical staff will also be considered. The proposal was submitted early in 1969.

ADDITIONAL INFORMATION

STOCKHOLM

Kungl. Tekniska Högskolans Bibliotek (Royal Institute of Technology Library),
Industrigarden 2, Stockholm 70
and
Svenska Institutet för Dokumentation, SINFDOK (Swedish Council for Scientific Information and Documentation),
Fack, 100 72 Stockholm 43
arrange courses in the field of documentation and information retrieval.

SWITZERLAND

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BERNE

Schweizerische Vereinigung für Dokumentation (SVD) - Association Suisse de Documentation (ASD) (Swiss Association for Documentation),
Postfach A 158, CH-8032 Zürich

Year of foundation of the courses: 1958

The Swiss Association for Documentation arranges 12-day (3 times 4 days) introductory courses to documentation and 8-day (2 times 4 days) courses on classification. The participants are technicians, engineers, economists and scientific workers. About 30 persons are trained each year.

Training of documentalists in chemistry is conducted by the **Faculty of Chemistry of the University of Basle**. The lectures are delivered in German.

TUNISIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

TUNIS

Training in documentation is carried out by the Institut Ali Bach Hamba.

In addition to students from Tunisia, a limited number of students from other French-speaking African countries are admitted.

An international team of visiting lecturers from Belgium, Federal Republic of Germany, France and the Netherlands alongside with Tunisian experts provides the students with a knowledge of the theory, methods and techniques of documentation.

Besides lectures, the course also includes practical exercises and guided visits to libraries and documentation centres. Starting with the fifth course (1969/1970), directed work experience will take place in the afternoons in a documentation centre in order to familiarize the students with documentation practice.

Institut Ali Bach Hamba,
2, rue de Champagne, Tunis

Director: B. Jaibi

Year of foundation of the course: 1965

NON-GRADUATE

Documentation course

Programme	hours
1. A general introduction to documentation science, its organization and techniques	40
2. Standardization and terminology	40
3. Bibliography and cataloguing	80
4. Classification systems and thesauri	40
5. Document reproduction and selection	40
6. Sources of information	10
7. Co-operation and coordination at national and international level	40
8. Organization of a documentation centre	40
	330

Type of training	A documentation training course
Duration of training	400 hours of lectures and exercises during six to seven months, 5 days a week from 8 a.m. to 12.30 p.m.

Conditions of admission	Leaving certificate of a secondary school (baccalauréat) or its equivalent Employees of documentation centres and libraries who can present a certificate issued by their authorities containing the data concerning their studies
For what kind of work are the students being trained	Assistant documentalists and information workers
Examinations	Candidates take a competitive entrance examination in September and a final examination in April upon completion of the course Entrance examinations are not required for students from other French-speaking African countries
Degrees or other qualifications granted	Assistant documentalist
Language of lectures	French
Tuition fees	None
Number of trainees	About 25 to 30 yearly
Other data	Besides training courses, the Institut Ali Bach Hamba also organizes refresher courses and documentation seminars The possibility of organizing advanced training courses in documentation is presently being studied by the Institut Ali Bach Hamba

TURKEY

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

There are no training courses for documentalists in Turkey. There is, however, a **Library School** at university level at the **University of Ankara**.

UGANDA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

KAMPALA

East African School of Librarianship, Makarere University College,
Kampala

NON-GRADUATE

Programme

1. Organization of libraries
2. Cataloguing
3. Classification
4. Bibliography
5. Documentation

Type of training	School of Librarianship
Are foreign participants allowed	Yes, from East Africa
Duration of training	2 years
For what kind of work are the students being trained	Librarians
Degrees or other qualifications granted	Diploma in Librarianship

UNION OF SOVIET SOCIALIST REPUBLICS

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

KHARKOV

See under MOSCOW Cultural institutes

KUIBYSHEV

Kujbyševskij Politehničeskij Institut im. V.V. Kujbyševa (Kuibyshev Polytechnic Institute)

GRADUATE

In addition to general subjects the following special subjects are lectured on:

	hours
1. Mathematical basis of cybernetics	68
2. Automatic regulation and control	112
3. Computing technology	66
4. Fundamentals of scientific information	104
5. Fundamentals of information techniques	139
6. Information retrieval languages	51
7. Programming	88
8. Information machines and their elements	132
9. Special equipment of information centres	90
10. Means of information transfer	140
11. Communication means and transmission of information materials	135
12. Automatic information systems	130

Type of training	Lectures in information science included in the programme of the Polytechnic Institute
Duration of training	5 years
For what kind of work are the students being trained	Subject information specialists, specialists in mechanization and automation of information processes
Examinations	Entrance, during the course, and final examinations
Degrees or other qualifications granted	Electrical engineer
Language of lectures	Russian

Tuition fees	Free
Other data	Specialists in mechanization and automation of information processes are also prepared by technical institutes in Tomsk, Sevastopol, Kaunas, Tallin.

LENINGRAD

See under MOSCOW Cultural institutes

MOSCOW

Vsesojuznyj Institut Naučnoj i Tehničeskoj Informaçii - VINITI (All-Union Institute for Scientific and Technical Information),
Baltijskaja ul. 14, Moscow A-219

Director: Prof. A.I. Mikhailov

Year of foundation of the doctoral courses: 1959
Year of foundation of the advanced courses: 1962

POST-GRADUATE

I. Doctoral courses in scientific and technical information

A. Specialization - "Scientific and technical information"

Programme

Introduction

1. Subject, basic problems and methods of scientific and technical information
2. Sources of information (books, journals, patents, standards, reports on scientific and research projects, etc.)

Basic procedures for processing of documents

3. Procedure of semantic processing of documents:
   - Classification, subject matter division (see also: "Basic types of retrieval systems")
   - Preparation of bibliographic description
   - Annotation
   - Abstracting
   - Reviewing
   - Translation
   - Problems of mechanization of these processes
   - Editing
4. Procedures of non-semantic processing of documents and technical means applied:
   - Copying
   - Storage

- Duplication (single and circulation)
- Teletransmission

Information publications

5. Abstracting journals, express information service, bibliographical indexes, bibliographical and abstracting cards. Other publications of reference and bibliographical types on published sources. Collections of abstracts, files and other publications on unpublished sources. Reviews. Types of reviews: topical, comparative, etc. Mechanization of the processes of preparing information publications

Information and referral services

6. Collection of sources of information. Reference and information collection as distinct from scientific and technical library stock. Library stock and technical archives as parts of reference information collection. Structure of reference information collection. Depository of original documents (copies). Reference apparatus
7. The main reference information file, principles and means of its realization
8. Special reference files and their organization. Principles and means of realization of special information files
9. Reference information service as distinct from the system of library and bibliographical services. Main reference information collections of central and regional information centres, as parts of joint stock, included in the national information system

Information retrieval systems

10. Retrieval systems
    Basic elements of retrieval systems
    Retrieval languages. Vocabulary of retrieval languages. Syntax of retrieval language as the means of expressing contextual relations. Influence of syntax on the translation from natural into information retrieval language
    Logic of information retrieval systems. General and specific relations. Principles of comparison
11. Basic processes of the performance of information retrieval system
    Translation of documents and queries from natural into information retrieval language. Inverse principle of the system. Concept of mechanization of retrieval system

Technical means for information retrieval

12. Non-machine means of information retrieval: Library cards, peek-a-boo cards, Uniterm cards, edge-punched cards. Area of application of non-machine means of implementation of retrieval systems
    Machine means for retrieval systems: Universal electronic digital computers. Possibilities of applying electronic digital computers to information systems

Main types of contemporary retrieval systems

13. UDC, representing systems with strong hierarchy
14. Indexes (subject indexes, author indexes, permutation indexes, specialized indexes)

15. Systems of the American Engineers' Joint Council (EJC) and of the Cybernetic Institute of the Ukrainian Academy of Sciences, representing systems with strong hierarchy and developed grammar. System "Pusto-Nepusto", representing grammar-free systems with weak hierarchy
16. Specialized information retrieval systems. Analyses of one of these non-machine systems
    Problems of retrieving copies of documents, according to their address
17. Information retrieval system "Polsk-I"
    Foreign information systems, solving similar tasks

Organization of scientific and technical information in the USSR

18. The role of the State Committee for Science and Technology in coordination of scientific and technical information in the USSR
    All-Union centres of scientific and technical information and their functions. Centralized treatment of published information materials
19. Central branch organs of scientific and technical information, and their functions
    Centralized treatment of unpublished information materials
    Information cards. Organization of the ascending flow of information
20. Regional (and branch) information organs and their functions
    Local organizations of scientific and technical information (in offices, factories, etc.) and their functions

Organization of scientific and technical information abroad

21. Organizations of technical and scientific information in socialist countries. Development, structure, and contemporary organization of information service
22. Organization of scientific and technical information in capitalist countries. Development, structure. Contemporary organization of information services in USA, United Kingdom and Japan
23. International information organizations. Their tasks, methods and fields of activity (FID, ISO, IFLA)

International co-operation in the field of scientific information activity

24. Perspectives of the development of international relations. Co-ordination of scientific and technical information activities among the members of Comecon and all socialist countries

B. Specialization - "Computing technology"

Programme

1. Introduction
   Fields of application of electronic discrete machines: computing technology, automatic information processing. Characteristics and flowcharts of basic types of existing electronic discrete machines

2. Information theory
   Quality of information
   Entropy. Conditional entropy, entropy of continuous process. Quantification. Kotelnikov theorem. Theory of transfer in noise. Shannon theorem. Redundancy, noise-proof feature. Hemming field. The idea of rectifying codes. Elements of the theory of statistical decision. Isolation of signal from noise
3. Boolean algebra
   Principles. Basic logical operations and their realization in electronics circuits. Derivation of complex logical schemes from simpler ones
4. Arithmetical foundations of machine operations
   Numerical systems - binary, decimal, octal. Advantages of binary numerical systems. Binary - decimal, octal and sextodecimal systems. Translation of numbers from one system into another. Representation of numbers. Fixed and floating point. Notation of number sign: etc.
5. Instruction coding
   Systems with one, two, three and four addresses. Following instructions - natural and constrained methods. Examples of instruction compilation for various coding systems. Examples of direct coding for these instructions. Length of words. Variable word length; etc.
6. Circuit building
   Code representation - parallel and sequential. Comparative characteristics of parallel and sequential calculation
7. Basic circuit elements
   Valve, semiconductor and ferrite and combined elements, semi-conductor integrated circuits, cryogenic elements, thin film circuits. Reliability of elements
   Construction of elementary logical functions (negation, conjunction, disjunction) on various elements. Elements AND, OR, NOT, exclusive OR (Schoeffer). Construction of basic and auxiliary circuits on universal elements
8. Basic circuit terminals
   Circuit types and their utilization in machines
   Code remembering registers. Dynamic and static registers. Register string control. Circuits of code comparison. Code shifting and transformation using time pulses. Commutators. Counters. Adders. Translators of continuous and discrete quantities
9. Memory devices
   Types of memory device: classification of memory according to their destination, rules of operation and representation of codes. Controlled access to memory devices of parallel and sequential operation. Memory versus remaining machine devices and role of various memory devices in machine circuit
10. Control devices
    Functions performed by control devices. Building of circuits of automatic control. Microprogrammic operation control. Debugging and verification of operation
11. Input and output devices
    Requirements and types of input and output device. Punched cards input and output devices. Data input from punched tapes. Coding devices.

Translators
Devices for automatic data input into electronic digital computer.
Optical input devices
Optical display devices, drum and disk printers. Electrographic and thermographic methods of quick print

12. Special methods of computerized information processing
    Sorting. Address - free access to memory. Programme storing. Metaprogramming
13. Problem of computer organization
    Purpose and role of programming. Machine language. Compilation and automatic programming. Choice of task-solving methods. Structural scheme of electronic digital computer. Establishing flowcharts of separate devices. Construction of electric circuits. Multiprogramming. Multifold input. Precedence hierarchy in time-sharing. Ideas of high-speed operating memory

C. Specialization - "Structural, applied and mathematical linguistics"

Programme

1. General problems
    - a) General concepts of linguistic theory: language and speech (langue and parol), syntagmatics and paradigmatics, plan of expression and plan of a summary, synchronism and diachronism, the concept of models
    - b) Methods of language description
    - c) Statistical-probabilistic approach to language teaching (speech), individual and common features of language
2. Language levels
    - a) Phonetics and morphology
    - b) Morphology. Concept of morphemes
    - c) Syntax
    - d) Semantics
3. Relations between language systems
    Language typology. Linguistics of universals
4. Applied linguistics. Machine translation

Type of training	Doctoral courses
Are foreign participants allowed	Yes
Duration of training	3 years Extra-mural - 4 years
For what kind of work are the students being trained	Information scientists, highly qualified staff in the theory and practice of information science
Degrees or other qualifications granted	Doctor's degree in: 1. scientific and technical information 2. computing technique 3. structural, applied and mathematical linguistics

Language of lectures	Russian
Tuition fees	Free

II. Advanced training courses for scientific information workers

Course in scientific and technical information

Programme	hours
1. Theory and organization of scientific and technical information	120
2. Mechanization and automation of information processing	30
3. Bibliography and knowledge of sources	20
4. UDC and its application to scientific and technical information	24
5. New techniques in reprography	40
6. Principles of editing scientific and technical literature	34
7. Latest scientific and technical achievements in basic branches of national economy	12
Total	280

Type of training	Course
Conditions of admission	1. University degree 2. Adequate period of employment in information work 3. Managers, engineers and scientific workers of centres of scientific and technical information 4. Applications for the course are submitted through the interested organizations
Are foreign participants allowed	Yes
Conditions of admission	Same as for Russian candidates and knowledge of Russian language
Duration of training	2 months
For what kind of work are the students being trained	Subject information specialists, information workers, scientific and technical librarians
Examinations	Final examination
Degrees or other qualifications granted	None
Language of lectures	Russian
Tuition fees	35 R.

MOSCOW

Moskovskij Poligrafičeskij Institut, Redaktorskij Fakul'tet (Moscow Institute for Graphic Arts, Editing Faculty)
Sadovo - Spaskaja 6, Moscow

GRADUATE

Programme

During the studies, in addition to general subjects, the following subjects are lectured on:

1. Theory and practice of editing
2. Principles of technical and scientific information
3. Editing of scientific and technical information publications and literature
4. History of the Soviet Communist press
5. Principles of modern technology
6. Scientific and technical terminology and designation of physical and technical quantities
7. History of publishing
8. Editing of contemporary Russian
9. History of journalism
10. History of the foreign Communist press
11. Technology of the printing industry
12. Polygraphic and artistic book-design
13. Organization, economy and planning of publications

Type of training	Courses in information science included in the programme of training at the Editing Faculty
Duration of training	5½ years
For what kind of work are the students being trained	Editors, librarians for all types of library, information workers
Examinations	Entrance, during the course and final examination
Degrees or other qualifications granted	Diploma of editor of scientific and technical literature and information
Language of lectures	Russian
Tuition fees	Free

MOSCOW; KHARKOV; LENINGRAD

Instituty kul'tury (Institutes of Culture)

The library faculties of these institutes prepare qualified librarians and bibliographers for technical libraries.

GRADUATE

Programme

During the course, in addition to general disciplines, the following subjects are lectured on:

	hours
1. Economics and organization of production in industry	200
2. History of technology	60
3. Library science	320
4. Foreign language - first	370
- second	182
5. History of library science in USSR and abroad	70
6. Bibliography (general course)	45
7. Bibliography of social and economic literature	145
8. History of technical books	54
9. Scientific and technical information	100
10. Technical methods in bibliographic and information work (mechanization and automation of storing and retrieval processes)	140
11. Handling patent literature	24

Type of training	Lectures in information science included into the library science programme
Duration of training	4 years 5 years extra-mural education
For what kind of work are the students being trained	Librarians and bibliographers for technical libraries
Examinations	Entrance, during the course and final state examinations
Degrees or other qualifications granted	Diploma of qualified librarian and bibliographer of technical libraries
Language of lectures	Russian
Tuition fees	Free

MOSCOW

Vsesojuznyj Institut Naučnoj i Tehničeskoj Informacii - VINITI (All-Union Institute for Scientific and Technical Information),
Baltijskaja ul. 14, Moscow A-219

Director: Prof. A.I. Mikhailov

SPECIAL

A. Course in mechanization and automation of information processes

Programme	hours
1. Theory and organization of scientific and technical information	40
2. Information retrieval systems and methods of their implementation	60
3. Means of automation and mechanization of information retrieval processes	60
4. Reprography, microcopying, mechanization of information processes	40
Total	200

SPECIAL

B. Course on reference collections

Programme	hours
1. Organization and use of reference collections	70
2. Information retrieval systems and mechanization of information retrieval	30
3. UDC and its application to scientific and technical information	24
Total	124

Type of training	Special courses
Conditions of admission	1. University degree 2. adequate period of employment in information work 3. managers, engineers and scientific workers of centres of scientific and technical information 4. applications for the course are submitted through the interested organizations
Are foreign participants allowed	Yes
Conditions of admission	Same as for Russian candidates and knowledge of Russian language
Duration of training	Course A - 1½ months Course B - 1 month
For what kind of work are the students being trained	Subject information specialists, specialists in mechanization, information workers, scientific and technical librarians
Examinations	Final examinations
Degrees or other qualifications granted	None
Language of lectures	Russian
Tuition fees	Course A - 25 R. Course B - 16 R.

VILNIUS

Vil'njusskij Gosudarstvennyj Universitet im. V. Kapsukasa, Fakul'tet Bibliotekovedenija i Bibliografii (Vilnius State University, Faculty of Library Science and Bibliography),
Vilnius

GRADUATE

Programme

During the studies, in addition to general subjects, the following subjects are lectured on:

	hours
1. Higher mathematics (incl. principles of linear programming)	210
2. Electronic digital computers and programming	130
3. Applied linguistics	110
4. Foreign language (first, second)	550
5. Economics of industry	120
6. Introduction to scientific information	140
7. History of books and library science	160
8. Library science	350
9. Information retrieval systems	290
10. Bibliography (general course)	100
11. Technical methods in information and library work)	120

Type of training	Lectures in information science included in the library science and bibliography programme
Duration of training	5 years
For what kind of work are the students being trained	Librarians for all types of library and information workers
Examinations	Entrance, during the course and final examinations
Degrees or other qualifications granted	Diploma of qualified librarian and bibliographer
Language of lectures	Russian
Tuition fees	Free

ADDITIONAL INFORMATION

In addition to the courses mentioned here main information centres and republic institutes of information organize systematically courses and seminars on scientific and technical information. The subjects of the seminars and courses are worked out according to the activity field of the organizing bodies.

UNITED ARAB REPUBLIC

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

CAIRO

Section des Archives et de Bibliothéconomie de la Faculté des Lettres de l'Université de Caire (Archive and Library Science Section of the Faculty of Arts at the University of Cairo),
Cairo

GRADUATE

Programme

1. Methods of work in library science
2. Bibliography
3. Documentation
4. Cataloguing
5. Classification

Duration of training	1. two years - for Diplôme B.A. en bibliothéconomie 2. three years - for Diplôme M.A. en bibliothéconomie 3. five years - for Diplôme Ph.D. en bibliothéconomie

National Information and Documentation Centre (NIDOC),
Altahreer St., Dokki-Cairo

Course in documentation

Programme

1. Organization of documentation centres
2. International exchange of scientific data
3. Computers and their use in documentation
4. Classification - theory and method
5. Bibliography
6. International co-operation in documentation
7. The technique of documentation work

Type of training	Training course
Conditions of admission	1. university education, 2. practice in information service, 3. knowledge of English or French apart from another language
Duration of training	3-4 weeks
For what kind of work are the students being trained	Personnel of information services of the United Arab Republic

Examinations	None
Degrees or other qualifications granted	None
Tuition fees	The courses are financed by the Government of the United Arab Republic and UNESCO
Number of trainees	80 persons

ADDITIONAL INFORMATION

The training of specialists in automation processes of information and classification is also conducted in the United Arab Republic.

UNITED KINGDOM

Training of documentalists and information workers in the United Kingdom is closely connected with the training of librarians. Specialized training is provided by university schools of librarianship which have already awarded their first degrees in librarianship (M.A., M.Phil., Ph.D.) and by different library schools which are conducting training according to the Library Association's Syllabus leading to the professional examination of the L.A.

Some schools have adapted their curricula to lead to degrees awarded under the aegis of the Council for National Academic Awards.

Post-graduate diploma courses are available at University College London, Sheffield University, the University of Strathclyde (Glasgow) and Queen's University (Belfast).

Courses of one year's duration leading to the post-graduate professional examination held by the Library Association are also available from other full-time schools of librarianship. Two-year full-time courses are available at eleven schools of librarianship which prepare non-graduate students for the examination of the Library Association.

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

ABERDEEN

Robert Gordon's Institute of Technology, School of Librarianship

Principal Lecturer in charge: J.Mc Connell Orr, F.L.A.

Year of foundation of the School: 1968

POST-GRADUATE

Programme of training is based on the syllabus of examinations of the Library Association.

Programme

A. Compulsory subjects
  1. The library in society
  2. The management of libraries
  3. Classification and cataloguing
  4. Practical classification and cataloguing
  5. Subject bibliography

B. Optional subjects (two to be chosen)
  6. Historical bibliography
     The social and technical history of the printed book
  7. History of libraries
  8. Analytical and descriptive bibliography
  9. Modern book production
  10. Indexing, abstracting and information retrieval
  11. Bibliography and librarianship of children's literature
  12. Library service for young people
  13. Archive administration

14. Palaeography
15. Hospital libraries
16. Comparative librarianship
17. Library services for science and technology
18. Literature and librarianship of local history

NON-GRADUATE

Programme

First year

Compulsory papers

1. The library and the community
2. Government and control of libraries
3. The organization of knowledge
4. Bibliographical control and service

Second year

List A
  1. Academic and legal deposit libraries
  2. Special libraries and information bureaux
  3. Public (municipal and county) libraries

List B
  1. Theory of classification
  2. Theory of cataloguing
  3. Practical classification and cataloguing
  4. Bibliography
  5. History of libraries and librarianship
  6. Handling and dissemination of information
  7. Library service for young people in schools and public libraries
  8. Hospital libraries
  9. Archive administration
  10. Palaeography and diplomatic

List C
  Bibliography and librarianship of English, Welsh, French, Spanish, Italian, German, Indo-European, Greek and Latin language and literature
  Bibliography and librarianship of history, geography, philosophy, social sciences, economy, fine arts, science, technology, medicine
  Bibliography and librarianship of particular countries and regions

Type of training	Courses in librarianship and information science
Conditions of admission	- A University degree - for post-graduate course - Two passes in the General Certificate of Education (Advanced level) for non-graduate course
Are foreign participants allowed	Yes

Conditions of admission	General statement concerning library school which are conducting training according to the Library Association's Syllabus Overseas applicants will be considered on the merits of their individual school-leaving certificates, but in any case those who would not be accepted by a university in their own country cannot be accepted for entry to the Library Association's professional examinations
Duration of training	- One-year course for graduates - Two-year course for non-graduates
For what kind of work are the students being trained	Librarians, and information officers for all types of library
Examinations	- Post-graduate Professional Examination - Part I and Part II Examination of the Library Association
Degrees and other qualifications granted	Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 10 per session for U.K. students

ABERYSTWYTH

College of Librarianship, Wales,
Aberystwyth, Cardiganshire

Principal: F.N. Hogg, D.P.A., F.L.A.

Year of foundation: 1964

POST-GRADUATE, GRADUATE and NON-GRADUATE

The following courses in librarianship are offered:

1. Post-graduate course leading to the post-graduate examination of the Library Association (programme of training see Aberdeen)
2. University degree course leading to a degree of Bachelor of Librarianship (University of Wales)
3. Two-year non-graduate course for the Associateship of the Library Association (programme of training see Aberdeen)

Type of training	Courses in librarianship and information science
Conditions of admission	1. Post-graduate course - a university degree and library experience are required

	2. Joint first degree in Library Science (B.L.S.) of University of Wales Aberystwyth and the College 3. Course for non-graduates - General Certificate of Education qualifications with two subjects at Advanced level and appropriate library experience - if not an additional term devoted to practical work in a library is given
Are foreign participants allowed	Yes
Conditions of admission	Overseas students may apply for places in the college providing they have the necessary educational qualifications and the financial backing of their Government or of another recognized body such as the British Council or UNESCO. They should write to the Library Association on matters of membership and eligibility to sit its examinations, or to the College in respect of the degree course
Duration of training	1. Post-graduate - four term 2. Degree course - 3 years (nine terms consisting of two parts involving study of academic subject and librarianship) 3. Non-graduate - two years (seven terms for entrants without library experience, six terms for students with library experience)
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	1. Post-graduate Examination of the University of Wales and the College 2. Degree examinations of the University of Wales and the College 3. Part I and Part II Examination of the Library Association
Degrees or other qualifications granted	Associateship of the Library Association Diploma L.S., B.L.S.
Language of lectures	English
Tuition fees	1. Post-graduate (four terms) £ 72 2. 3 year degree course £ 162

	3. Two-year course for students with library experience (six terms) - £ 108 Two years and one term course for students without library experience - £ 126
Financial aid for trainees	College courses are recognized by Local Education Authorities for grant purposes. It is the responsibility of the student to apply for a grant; intending students are advised to make preliminary enquiries about their eligibility for a grant before the college interview

BELFAST

The Queens's University of Belfast, School of Library Studies,
2 College Gardens, Belfast BT9 6 BQ

Director: P. Havard-Williams, M.A., A.L.A., A.N.Z.L.A.

Year of foundation of the course: 1964

POST-GRADUATE

Course for university graduates

Programme

1. Organization and retrieval of information
2. Bibliography and reference work
3. Libraries in their social setting
4. Management of libraries
5. Bibliography of a subject area (Humanities, Social sciences, or Science and technology)
6. One optional subject
   a) Palaeography and archive administration
   b) Historical and analytical bibliography
   c) History of libraries and librarianship
   d) Library service for young people
   e) Documentation, aids to research and information retrieval
   f) Descriptive bibliography and indexing
   g) Library buildings
   h) Bibliography and librarianship of Irish history and literature

NON-GRADUATE

Course for non-graduates

Programme

as for graduates, plus one first-year subject from the courses for the degree of B.A., B.Sc. or B.Sc. (Econ.), and one further optional subject from 6 above

Type of training	Full-time course in librarianship
Conditions of admission	- a degree of a recognized university, or - general entrance requirements of the Queen's University and the entrance requirements of the Faculty of Arts, or - an alternative standard of education acceptable to the Board of Library Studies
Are foreign participants allowed	Yes
Duration of training	University graduates - one year Non-graduates - two years
For what kind of work are the students being trained	Qualified librarians in all types of library
Examinations	Three hour paper or papers in each subject
Degrees or other qualifications granted	Diploma in Library Studies Diplomates are eligible, subject to membership and service requirements, for admission to the Register of Chartered Librarians, as Associates of the Library Association (A.L.A.)
Language of lectures	English
Tuition fees	Annual composite fee: £ 42 Annual enrolment fee: £ 10 Matriculation fee: £ 2
Financial aid for trainees	Almost all students receive grants covering fees and maintenance, from local education authorities, or part or full salary from their employers
Number of trainees	Approximate annual output: 25 diplomates

Plans for other types of courses in 1969-70:

New course - Degree of Master of Library Studies (M.L.S.)

The course for this degree will be introduced in 1970 or 1971 and will extend over one academic year, and the candidate, who must be a graduate or hold an equivalent qualification, will be assessed by written examination, course work and a dissertation.

Practical training in libraries, course work, visits to libraries, and study tours will form integral parts of the course.

The course will comprise the following subjects:

- The objectives and services of libraries
- Library materials and reference services
- Organization and retrieval of information
- Library operations and management

and two of the following:

- Palaeography and archive administration
- History of the book
- Comparative librarianship
- Library services and materials for children
- Library buildings
- Automation of library processes
- Descriptive bibliography and indexing
- Indexing theory and mechanized information retrieval

Suitably qualified candidates may undertake research in library studies for the degrees of M.A. and Ph. D.

BIRMINGHAM

School of Librarianship, City of Birmingham College of Commerce,
Gosta Green, Birmingham 4

Director: R.M. Lock, F.L.A.

NON-GRADUATE

Programme

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Course in librarianship and information science
Conditions of admission	Two passes in the General Certificate of Education (Advanced level) No requirement of pre-course practical library work
Duration of training	Two years
For what kind or work are the students being trained	Librarians for all types of library
Examinations	Part I and Part II Examination of the Library Association
Degrees or other qualifications granted	Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 61 per year

BRIGHTON

Brighton College of Technology, School of Librarianship,
Moulsecoomb, Brighton 7, BN2 46

Principal: C. Bradley, M.A., F.L.A.

Date of foundation: 1947

NON-GRADUATE

Programme

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Course in librarianship and information science
Conditions of admission	Two passes in General Certificate of Education (Advanced level) and at least one year of practical work in a library
Are foreign participants allowed	Yes
Conditions of admission	Equivalent to British General Certificate of Education (Advanced level) and fluent English
Duration of training	Two years
For what kind of work are the students being trained	Librarians for all types of library
Examinations	Part I and Part II Examination of the Library Association
Degrees or other qualifications granted	Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 530 for overseas students
Financial aid for students	None for overseas students
Number of trainees	80

GLASGOW

University of Strathclyde, School of Arts and Social Studies,
Livingstone Tower, Richmond Street, Glasgow C.1

Dean: W.E. Tyler, F.L.A.

Year of foundation: 1964

The following courses in librarianship are offered:

1. One-year course for the Post-graduate Diploma in Librarianship

2. Three-year course for the Degree of Bachelor of Arts in the School of Arts and Social Studies, with librarianship as the first principal subject
3. Two-year course for the Associateship of the Library Association

POST-GRADUATE

One-year course for the Post-graduate Diploma in Librarianship

Programme

1. The management of libraries, including a special study of one of the following:
   a) academic and national libraries
   b) industrial and special libraries
   c) public libraries
   d) school and children's libraries
2. Classification
3. Cataloguing
4. Three classes from the following, including at least one from each of sections a) and b) :
   a) Bibliography, including a study of materials and research in a special field:
      - English literature, 1400-1800
      - English literature, 1750 to the present day
      - Literature for children
      - Geography
      - Mediaeval and modern history
      - Politics and law
      - History of science
      - Chemistry and chemical technology
   b) Historical bibliography
      - Analytical and descriptive bibliography
      - Documentation and information retrieval, consisting of: the recording, organization and dissemination of specialized knowledge. The theory of indexing, storage and information retrieval in special libraries. Item indexing: classification, alphabetical subject headings, semantic factoring, relational analysis. Term indexing. The application of machine techniques. Coding. Strategies of search. The testing and evaluation of various indexing techniques. The practices of published indexing and abstracting services. The information service. Subject inquiries, literature searches. Abstracting, translation, bulletins. Preparation for publication: technical writing, typography and illustration, editorial procedure. Automation in reference work. Documentary reproduction; the methods and economics of producing and copying documents. Copyright problems

Type of training	Post-graduate course in librarianship and information science
Conditions of admission	University degree
Are foreign participants allowed	Yes

Conditions of admission	As for British students
Duration of training	One year
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	During the course and final examination
Degrees or other qualifications granted	Post-graduate Diploma in Librarianship
Language of lectures	English
Tuition fees	£50

NON-GRADUATE

Two-year course for the Associateship of the Library Association

Programme

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Course in librarianship and information science
Conditions of admission	a) Obtained a Scottish Certificate of Education in five subjects, three of which are at higher grade: one must be in English and one either a language or a science, or b) Passed the General Certificate of Education in five subjects, two of which must be at Advanced Level: one must be in English and one in either a language or a science, or c) Obtained the Northern Ireland Senior Grammar School Certificate with five passes, two of which are at Advanced Level: one pass must be in English and one in either a language or a science, or d) Passed the First Professional Examination or the Entrance Examination of the Library Association, or e) Obtained such other general educational certificate as the Council of the Library Association may accept as being of equivalent standard

Duration of training	Two years
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Part I and Part II Examination of the Library Association
Degrees or other qualifications granted	Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 50

LEEDS

Leeds College of Commerce, Department of Librarianship and Information Science,
28 Park Place, Leeds 1

Director: D.E. Davinson, D.P.A., F.L.A. (Acting)

Year of foundation: 1947

POST-GRADUATE, GRADUATE and NON-GRADUATE

Programmes

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Course in librarianship and information science
Conditions of admission	- A university degree for post-graduate courses - Two passes in the General Certificate of Education (Advanced Level) for non-graduate and under-graduate courses
Are foreign participants allowed	Yes
Conditions of admission	Attendance at a personal interview. Basic admission requirements are those laid down by the Library Association for its courses
Duration of training	1. One year for post-graduates 2. Three years for the B.A. (Librarianship) and B.Sc. (Information Science) courses 3. Two years for Library Association Final Part II course Short courses for senior librarians are also a feature. These normally last one week

For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Library Association Final Part I and II
Degrees or other qualifications granted	Associateship of the Library Association, B.A. (Librarianship), B.Sc. (Information Science) Degrees are awarded by the Council for National Academic Awards
Tuition fees	£ 75 / year (£ 250 / year for foreign students)
Financial aid for trainees	Arranged by students. No awards are given by the college
Number of trainees	200-250 per year

LIVERPOOL

Liverpool College of Commerce, School of Librarianship,
Tithebarn Street, Liverpool 2

Director: W.H. Snape, Principal lecturer in charge

Year of foundation: 1962

POST-GRADUATE and NON-GRADUATE

Programmes
based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Courses in librarianship and information science
Conditions of admission	- A university degree - course for graduates - Two passes in the General Certificate of Education (Advanced Level) - course for non-graduates
Are foreign participants allowed	Yes
Conditions of admission	On application (Basic Admission requirements are those laid down by the Library Association for its general professional and post-graduate professional examinations)
Duration of training	- One-year course for graduates - Two-year full-time course for non-graduates
For what kind of work are the students being trained	Librarians and information officers for all types of library

Examinations	- Post-graduate professional examinations of the Library Association - Part I and Part II Examination of the Library Association
Degrees or other qualifications granted	Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 66 per year Overseas students - £ 250
Financial aid for trainees	- Department of Education and Science bursaries - Local Education Authority awards
Number of trainees	200

LONDON

University College London, School of Librarianship and Archives,

Gower Street, London W.C. 1

Director: Prof. A. Brown

Year of foundation: 1919

The educational and training programmes offered cover post-graduate diplomas, M.A., M.Phil. and Ph.D. degrees in librarianship, information studies and archive administration.

M.Phil. and Ph.D. in Librarianship and Archive Administration are awarded for approved work presented for examination in thesis form, supplemented by oral examination. For both degrees the minimum qualifications for admission are similar to those for the M.A. For the Ph.D. a high level of academic and professional maturity is expected. Admission is normally to the M.Phil. degree in the first place, with provision for transfer to the Ph.D. in suitable cases. For full-time students the minimum course is two years for the M.Phil. and three years for the Ph.D. Part-time courses are likely to be twice the length in each case.

The following post-graduate diploma courses are offered:

A. General Diploma in Librarianship
B. Diploma in Scientific and Industrial Library and Information Work
C. Diploma for Teacher-Librarians
D. Diploma in Archive Administration (details are not published)

POST-GRADUATE

A. General Diploma Course in Librarianship

Programme

1. History of libraries: examination of course work
2. Elements of historical bibliography: one paper, including examination of course work

3. Subject bibliography - research sources in general and special fields: examination of course work
4. Cataloguing: one paper, and examination of course work
5. Classification: one paper, and examination of course work
6. Management studies in library and information work, including mathematics and statistical method: one paper, and examination of course work
7. The study of reading: examination of course work
8. Candidates must choose one of the following:
   a) Palaeography and diplomatic of English archives: two papers
   b) Bibliography of Asia and Africa: one paper, and examination of course work
   c) The literature of pure and applied science; communication problems, information systems: one paper, and examination of course work
   d) Advanced historical bibliography: one paper, including course work; and either modern book production: one paper; or manuscript studies: one paper.

Type of training	Course in librarianship
Conditions of admission	A good first degree and the university's diploma in librarianship or an equivalent qualification, a year of practical experience in library work; a good reading knowledge of at least two modern languages
Are foreign participants allowed	Yes
Conditions of admission	As for English students
Duration of training	One year for full-time students Part-time students are occasionally accepted for a course of two years
For what kind of work are the students being trained	Librarians for all types of library
Examinations	The examination will consist of (a) an essay or report (of not more than 25,000 words), (b) two written papers in the field selected by the candidate, (c) an oral examination held at the discretion of the examiners The title of the essay or report must be submitted by the candidate for approval at least six months before the date of the examination. If the proposed subject is not approved the candidate may submit an alternative within one month of being so informed by the university

The two written papers must be in one of the following fields of study:

a) Historical and social studies in librarianship
b) Regional studies in bibliography and librarianship
c) Comparative studies in librarianship
d) Communication studies: information science, storage, retrieval and dissemination
e) Historical and analytical bibliography
f) Classification and cataloguing studies
g) The study of reading
h) Manuscript studies
i) Management studies in library and information work

Degrees or other qualifications granted	M.A. in Librarianship
Language of lectures	English
Tuition fees	£ 62
Financial aid for trainees	Government
Number of trainees	40

POST-GRADUATE

B. Diploma Course in Scientific and Industrial Library and Information Work

Programme

1. The literature of pure and applied science: communication problems; information systems: one paper, and examination of course work. Includes seminars and course work. Seminars are designed to enable students with different scientific interests to contribute to a common topic from their specialist view points. Course work includes the writing of a paper in pure or applied science, prepared as though for publication in a specified journal; this paper demands subject knowledge and a wide-ranging search in the recent literature. Candidates also write a critical review of a specified scientific information system
2. The history of modern library and information services: examination of course work
   Seminars and course work, with opportunities for specialization
3. Subject bibliography: research sources in general and special fields: examination of course work
   Lectures and extensive course work based on subject specialization

4. Surveys and use of scientific literature: examination of course work
   Seminars and course work based on subject specialization
5. Classification: one paper, and examination of course work
   Lectures, seminars, and course work based on subject specialization
6. Cataloguing: one paper, and examination of course work
   Mainly seminars and course work, with specialization by types of service
7. Modern printing methods: one paper
8. Management studies in library and information work: one paper
   Provides opportunities to specialize by types of service
9. An individual study in an approved topic
   The topic will normally be selected from subjects in course 1

Type of training	Course in Librarianship and Information Work
Conditions of admission	A first degree in a recognized branch of science, and a practical experience in library work
Are foreign participants allowed	Yes
Conditions of admission	As for English students
Duration of training	One year for full-time students; part-time students are accepted for a course of two yesrs
For what kind of work are the students being trained	Librarians of scientific and industrial libraries and information workers
Examinations	As for General Diploma Course - A.
Degrees or other qualifications granted	M.A. in Information Studies
Language of lectures	English
Tuition fees	£ 62
Financial aid for trainees	Government
Numbers of trainees	6 - 10

POST-GRADUATE

C. Diploma Course for Teacher Librarians

Programme

1. The history of librarianship, with special reference to the role of libraries in the history of English education: examination of course work
2. Subject bibliography: research sources in general and special fields: examination of course work

3. Cataloguing and classification: examination of course work
4. Library management studies: one paper
5. Reading and the use of books in education: two papers
   Includes a) Principles of child development, with special reference to the place of reading in the mental growth of children and adolescents; linguistic and reading ability; remedial reading; and b) Critical study of children's literature and outstanding collections
6. Use of libraries as aids to teaching: one paper
   Includes the role of the library in educational institutions, its relation to subject teaching in schools and colleges; the library needs of students and research workers; the flow of information in the education field
7. An individual study in an approved topic
   The course work required will consist of the planning and preparation, with appropriate bibliographies and annotations of a) an individual study in an approved topic at the student's own level; and b) material to be used in the presentation of a topic or part of a teaching syllabus for a specified group of pupils or students

The language requirement is that candidates must have a good reading knowledge of at least one modern language in addition to English

Type of training	Course in librarianship
Conditions of admission	A first degree and several years of teaching experience including some experience of school libraries
Are foreign participants allowed	Yes
Conditions of admission.	As for English students
Duration of training	One year
For what kind of work are the students being trained	Teacher-librarians
Examinations	As for General Diploma Course - A.
Degrees or other qualifications granted	Diploma
Language of lectures	English
Tuition fees	£ 62
Financial aid for trainees	None
Number of trainees	10-15

LONDON

The City University, Information Science Section,
St. John Street, London E.C. 1
Course Organizer: J.E.L. Farradane, B.Sc., A.R.C.S., A.R.I.C., F.I.Inf.Sc.

Year of foundation of the courses: 1961 (evening classes - changed to day-release classes in 1969); 1963 Full-time course

The City University provides a full-time one-year course and a two-year part-time day-release (formerly evening) course in Information Science with a similar programme of training.

POST-GRADUATE

Full-time course

Programme

1. Information gathering
   a) Sources of information: their characteristics, comparative evaluation, and appropriate means of exploitation
   b) Published and unpublished sources: individual sources and organizations; oral, visual, and non-documentary sources
   c) British and foreign specialized sources: libraries, learned societies, trade organizations, research associations, national and international bodies
   d) Methods of locating sources: making efficient use of them, in particular, for obtaining detailed information
2. Information storage and retrieval
   a) Classification theory: hierarchic, scientific, by synthesis; logical principles and advanced research methods; principal classification systems at present in use
   b) Information storage and retrieval: indexing; large-scale mechanical and electronic methods; information retrieval systems; computer-production of indexes and selective dissemination of information; problems of testing systems; statistical evaluation
   c) Developments in linguistic and semantic analysis and logic for information storage and retrieval
3. Dissemination of information
   a) Flow of information: theory of human communication and the problems in research and industry
   b) Abstracting and the production of abstracts journals
   c) Organization of the flow of information in research, industry, and government; role of international organizations in the dissemination of information; liaison and advisory services
   d) Application of results of research and development
   e) Ergonomics: its application to information work
4. Legal and commercial aspects of information work
   a) Law: Patents, Trade Marks, Registered Design, and Copyright Law
   b) Standards: national, international and industrial standards; organizations dealing with standards
5. Administration and other aspects of information work
   a) Management of information departments: staffing problems and organizational relationships; economics of information services

b) Reproduction and presentation of information: copying and reproduction methods; methods of typography, printing and illustration in relation to problems of efficient communication
c) Language studies: tuition in one foreign language to good technical reading standard; principles of translation and transliteration, and linguistic problems in information work

Type of training	Academic and practical studies in information science
Conditions of admission	Honours graduates in science or engineering, economics or social sciences (ordinary degrees acceptable for the part-time course)
Are foreign participants allowed	Yes
Conditions of admission	As for U.K. students
Duration of training	Full-time 1-year M.Sc. course; Part-time 2-year day-release Diploma course
For what kind of work are the students being trained	Information scientist and subject information specialist
Examinations	During the course one test progress paper; Final examinations - 5 papers + report + thesis
Degrees or other qualifications granted	Full-time course - M.Sc. in Information Science; Part-time course - Diploma of the University
Language of lectures	English
Tuition fees	£ 123 - for British students £ 293 - for overseas students
Financial aid for trainees	Available only to British students
Number of trainees	Full-time course - 20 students (12 in 1968-9) Part-time course - 25 students in each year

LONDON

North-Western Polytechnic, School of Librarianship,
207 Essex Road, London N. 1

Head: E.P. Dudley, F.L.A.

POST-GRADUATE

Programme

See University College London: A. General Diploma Course in Librarianship, and B. Course in Scientific and Industrial Library and Information Work.

Students may choose either the A or the B syllabus. A science degree is essential for the B course.

Type of training	Course in librarianship and information science
Conditions of admission	A university degree and at least one year of practical work in a library. Students entering by direct application to the school from universities are required to undertake a preliminiary term of practical work
Are foreign participants allowed	Yes
Conditions of admission	See Graduate course of North-Western Polytechnic
Duration of training	One year
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Post-graduate Professional Examination of the Library Association
Degrees or other qualifications granted	Academic Post-graduate Diploma in Librarianship of the University of London
Language of lectures	English
Tuition fees	£ 45 per year
Number of trainees	80

LONDON

Ealing Technical College, School of Librarianship,

St. Mary's Road, Ealing, London W. 5

Director: E.F. Browning

Year of foundation: 1954

POST-GRADUATE

Programme

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Courses in librarianship and information science
Conditions of admission	- A university degree - Previous practical experience is recommended, but not essential

Are foreign participants allowed	Yes
Conditions of admission	On application (Basic admission requirements are those laid down by the Library Association for its post-graduate professional examination)
Duration of training	One-year course for graduates
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Post-graduate professional examination of the Library Association
Degrees or other qualifications granted	Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 45 per year
Financial aid for trainees	On application

LONDON

North-Western Polytechnic, School of Librarianship,
207-225 Essex Road, London N. 1

Head, E.P. Dudley

Year of foundation: 1946

GRADUATE

Degree course

Programme

1. The "Universe of knowledge" and subject study
   Part I: the student considers knowledge as a whole, examining relevant disciplines such as epistemology, the growth of knowledge and the attempts made to form an integral view
   Part II: choice of one of several subjects for more detailed study; subject bibliography and other aspects of the course can be closely related to the choice made:
   - Biology
   - Chemistry
   - Children's literature
   - English local history
   - Literary studies (English literature)
   - Music
2. Social studies
   The intention here is to demonstrate the interaction between society and library services
   Part I: offers a broad study of the major social institutions in Britain today and introduces certain concepts used in the social sciences

Part II: allows the student to examine in some detail the relationship between particular communities and the appropriate library services

3. Communications studies

Part I: begins by surveying the contributions made to the study of communication by such disciplines as semantics, philosophy, psychology, and information theory, assessing their relevance for librarians; this is followed by a course introducing the major systems of communication and control in society, with particular reference to those which have been developed for recorded and documentary communication

Part II: provides for further study of certain aspects of the above which are of special importance for the librarian, namely: library management, bibliographic organization, and indexing systems. In each of these there will be an element of specialization based on the student's subjects choice in p. 1 and his interest in a particular type of library

4. Complementary studies

Part I: includes courses in mathematics and logic, and the study of a foreign language with particular reference to the needs of libraries

Part II: choice from the following (one to be chosen):
- Studies in printed communications
- Literature and society
- Library history
- Descriptive bibliography and bibliographical cataloguing
- Palaeography and the use of original documents
- Personnel administration

Type of training	Course in librarianship and information science
Conditions of admission	The minimum entry requirements are two General Certificate of Education (Advanced level) and three Ordinary level passes. General Certificate of Education subjects must include English language and either a foreign language or a science, desirably both
Are foreign participants allowed	Yes (see details under "Other data")
Duration of training	Four years
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Written examinations take place at the end of Part I (after four terms) and at the end of Part II (after ten terms). A final dissertation will be completed in the last two terms of the course

Degrees or other qualifications granted	B.A. (Honours) of the Council for National Academic Awards
Language of lectures	English
Tuition fees	£ 45 per year (British students)
Financial aid for trainees	British students are supported by grants from local authorities or salaries from their libraries
Number of trainees	80
Other data	1. The School prepares overseas students for the qualifying examinations (both post-graduate and non-graduate) and also runs a special one-year course for experienced overseas librarians which does not lead to a qualification. The qualification courses incorporate a period of preliminary study and practical work in British libraries; the duration of the graduate course is therefore five terms beginning in April; for non-graduates the course lasts three years and begins in January. Pre-entry qualifications are as for British students, overseas equivalents being accepted if they are approved by the Library Association (non-graduate course). Students without "Advanced" level G.C.E. passes, but with five "Ordinary" levels or the equivalent may enter for the Library Association examinations after successfully completing a preliminary year of study at library school. Fees for overseas students are £ 250 a year; £ 150 a year or pro rata for periods of preliminary study. A deposit of £ 50 must be sent before the course begins. All students must have worked in a library in their own country for at least a year (non-graduates) or six months (graduates). They should be sponsored and financed by an official body such as their Government or municipality or by an international agency such as UNESCO or the British Council. Private students are rarely admitted. In any event the application must be forwarded

through the Student Officer of the home country.
Fluency in English must be perfect.
2. In addition to studies leading to the Library Association examinations, the School offers occasional short courses and symposia designed for experienced librarians.

NON-GRADUATE

Programme

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Course in librarianship and information science
Conditions of admission	Two passes in the General Certificate of Education at Advanced level At least one year of practical work in a library Students without satisfactory practical experience of library work are required to undertake a preliminary term at the beginning of the course
Are foreign participants allowed	Yes
Conditions of admission	See Graduate course ("Other data")
Duration of training	Two years
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Part I and Part II Examination of the Library Association
Degrees or other qualifications granted	Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 45 per year
Number of trainees	240

LONDON

Ealing Technical College, School of Librarianship,
St. Mary's Road, Ealing, London W.5.
Director: E.F. Browning

NON-GRADUATE

Programme

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Courses in librarianship and information science
Conditions of admission	Two passes in the General Certificate of Education (Advanced level)
Duration of training	Two years
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Part I and Part II Examination of the Library Association
Language of lectures	English
Tuition fees	£ 45 per year

LOUGHBOROUGH

Loughborough Technical College, School of Librarianship,
Radmoor, Loughborough, Leicestershire

Director: R. Stokes, M.A., D.L.C., F.L.A.

Year of foundation: 1946

POST-GRADUATE, GRADUATE and NON-GRADUATE

Programmes

based on the syllabus of examinations of the Library Association (see Aberdeen), but a university degree is also offered.

Type of training	Courses in librarianship and information science
Conditions of admission	1. A university degree - for post-graduate courses 2. General Certificate of Education (Advanced level) for 4-year course leading to B.A. or B.Sc. of Loughborough University of Technology 3. Two passes at General Certificate of Education (Advanced level) - for non-graduate courses Previous library experience required for post-graduate and non-graduate courses

Are foreign participants allowed	Yes
Conditions of admission	Similar conditions as above
Duration of training	1. One-year course for post-graduates 2. Four-year course leading to B.A. or B. Sc. of Loughborough University of Technology 3. Two-year course for non-graduates
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	Part I and Part II Examinations of the Library Association Post-graduate and non-graduate examinations
Degrees or other qualifications granted	Master's and Bachelor's degrees of the University Associateship of the Library Association
Language of lectures	English
Tuition fees	£ 69 per year (British students) £260 per year (foreign students)
Number of trainees	250

MANCHESTER

Manchester College of Commerce, Department of Librarianship,

Aytoun Street, Manchester M1 3GH
Head: J.L. Ingham, F.L.A.
Year of foundation of the courses: 1964

POST-GRADUATE, GRADUATE and NON-GRADUATE

Programmes

based on the syllabus of examinations of the Library Association (see Aberdeen)

Type of training	Courses in librarianship and information science
Conditions of admission	1. A university degree - for post-graduate course

	2. General Certificate of Education (Advanced level) for 3-year course leading to B.A. in library studies 3. Two passes of General Certificate of Education (Advanced level) - for non-graduate courses
Are foreign participants allowed	Yes
Conditions of admission	All foreign students must be sponsored by an official body or chief librarian in the country concerned, and have completed at least one year's experience in an approved library before the course begins
Duration of training	- Post-graduate course - three terms (12 months) commencing in January of each year - Three-year first degree course (Council for National Academic Awards) - Two-year course for non-graduates
For what kind of work are the students being trained	Librarians and information officers for all types of library
Examinations	- Post-graduate course - mid-session examination (internal) in June and the Library Association Post-graduate Examination in December (external) - Three-year degree course - June: internal examination - Two-year course - mid-session examination (internal) in Summer of each year; Library Association Part I (intermediate) Examination and the Part II (final) Examination, December of second year
Degrees or other qualifications granted	All courses can lead to the Associateship of the Library Association, but the three-year course also leads to B.A. in library studies
Language of lectures	English
Tuition fees	£ 250 per year for foreign students

Number of trainees	16 Two-year course 1966/67 - 60 students
Other data	Department of Librarianship organizes also short courses for senior personnel. The College of Commerce has been designated as a future Polytechnic, and its title will be thus changed in due course. Degree in Information Science may commence either Autumn 1969 or 1970.

NEWCASTLE

Newcastle-upon-Tyne Polytechnic, Department of Librarianship,
Education Precinct, Newcastle-upon-Tyne NE1 8SP

Head of Department of Librarianship: W. Caldwell, F.L.A.
Director of Studies in Information Science: T.D. Wilson, F.L.A.

Year of foundation of the B.Sc. in Information Science: 1968

GRADUATE

Programme

First year

1. Introduction to information sciences
2. Organization of knowledge (I): intended to lead to an understanding of what is meant by "the field of knowledge", of the methods and problems of scientific investigation, and of the bibliographical problems created by the growth and diversification of recorded knowledge
3. Social factors and documentation: a consideration of the psychological and sociological background to an individual, or groups of individuals, seeking or producing information
4. Mathematics (I): to provide a mathematical background suitable for information science and to assist with pure science and engineering studies
5. Basic science (I): to acquaint students with the fundamental vocabulary, concepts, methodology, techniques and some applications of physical and chemical sciences
6. Foreign language
7. Development of science and technology (I): a survey of the historical development of science and technology with due attention to social and economic changes

Second year

1. Organization of knowledge (II): with special reference to practical methods of information handling through classification, cataloguing, and indexing

2. Bibliography of, and information problems in, science and technology:
   a) sources of bibliographic information and general data in science and technology
   b) identification of some problems in information work
3. Report writing and editing
4. Mathematics (II)
5. Basic science (II)
6. Development of science and technology (II)
7. Short courses: graphics, and research methods in information science

Third year

A practical year spent in libraries and information centres

Fourth year

1. Information storage and retrieval: a theoretical and practical study of modern methods of organizing information for retrieval, including the application of computers
2. Bibliography of, and information problems in, main academic subjects
3. Data processing: to introduce the student to the basic principles of systems analysis and to the possibilities of electronic date processing machines in library and information department operations
4. Management and its applications in information centres: to provide a framework of management theory illustrated by reference to libraries and information centres, and by comparison with formal organizations of all kinds
5. Physical or engineering sciences: with students opting for either advanced physical sciences, or engineering sciences
6. Project: to enable the student to disply his ability to pursue a subject in depth, drawing, where possible, upon different areas of study from within the course

Type of training	Academic study in information science
Conditions of admission	General Certificate of Education (or equivalent) with two subjects at Advanced level and three at Ordinary level. Mathematics and physics or chemistry, or physics with chemistry at Ordinary level, and a language other than English must be included. The Advanced level requirements are, at present, being held open but, obviously, candidates must have an interest in science and technology and willingness to pursue such subject to a higher level
Are foreign participants allowed	Yes
Conditions of admission	Equivalent educational qualifications

Duration of training	Four years
For what kind of work are the students being trained	Information scientists, subject information specialists, specialists for particular parts of information processes, scientific and technical librarians
Examinations	Written examinations in first and second year of studies and final written examination in fourth year
Degrees or other qualifications granted	B.Sc. in Information Science
Language of lectures	English
Tuition fees	£ 45 per academic year
Number of trainees	1968 - 9 students
Financial aid for trainees	The course is approved for the award of educational grants by local education authorities in the U.K. There are no college scholarships for foreign students, who must provide their own finance
Other data	The College also provides the normal range of non-graduate and post-graduate courses in librarianship based upon the syllabus of the Library Association

SHEFFIELD

University of Sheffield, Post-graduate School of Librarianship and Information Science,
Western Bank, Sheffield S10 2TN

Director: Prof. W.L. Saunders, M.A., F.L.A.

Year of foundation of the course: 1964

POST-GRADUATE

Programme

1. Generation and use of information
   a) general
   b) scientific and technological communities
2. Information resources
   a) general:
      - general reference

    - humanities
    - social sciences
  - b) science and technology
- 3. Communication of information
  - a) organization for use:
    - basic cataloguing
    - basic classification
    - advanced classification
    - reprography
    - computer basics
    - computer programming
    - computer applications
  - b) systems and services:
    - introductory survey; card-to-computer mechnanization
    - basic statistics
    - advanced statistics
    - organization and method studies
    - operational studies
    - systems analysis and design

Type of training	Post-graduate study in librarianship and information science
Conditions of admission	A candidate for entry to the course of study for the M.Sc. in Information Studies must: a) be a graduate of a university of the United Kingdom, or hold an equivalent qualification of some other institution or body recognized by the Senate for this purpose. Priority is given to graduates in science, technology, engineering or similar, such as mathematics or statistics b) satisfy the Director of the Post-graduate School of Librarianship and Information Science that he has an adequate reading knowledge of two languages in addition to English; and c) normally have had approved practical experience in a library or information service A candidate whose qualification is of lower standard than second class honours must satisfy the Board of the Post-graduate School of Librarianship and Information Science as to his general and special qualifications
Are foreign participants allowed	Yes

Conditions of admission	As for U.K. students
Duration of training	One calendar year, full-time
For what kind of work are the students being trained	Graduates of the Course are trained to occupy posts in science information units and libraries in industrial, academic and government establishments involving all types of work in the operation of such units and in science information design, development, applied and background research work
Examinations	Written final examination in: 1. Generation and use of information 2. Information resources 3. The communication of information
Degrees or other qualifications granted	M. Sc. in Information Studies
Language of lectures	English
Tuition fees	U.K. students £ 72; Overseas students £ 250
Financial aid for trainees	U.K. students: Science Research Council Advanced Course Studentships are normally available to all students of the University of Sheffield M.Sc. in Information Studies course, subject to high academic achievement in their first degree. Bursaries may be awarded to other students by the Department of Education and Science Overseas students: a number of studentships and scholarships are available to overseas students, and details may be obtained from the nearest British Council offices, the Cultural Attaché at the British Embassy, or the British Council, 65 Davies Street, London, W.1.
Number of trainees	About 15-20 (plus about 20-25 studying for the M.A. in Librarianship)
Other data	Short highly specialized advanced courses are run from time to time (usually in summer).

For fuller details of the M.Sc.
course see Aslib Proc., vol. 21,
no. 1, Jan., 1969, pp. 24-31.
The University also offers M.A.
in Librarianship.

ADDITIONAL INFORMATION

LONDON

Short courses lasting several days on various problems associated with information work are organized by ASLIB, schools of librarianship, various colleges, and professional associations.

The aim of the courses is to familiarize persons without adequate experience in information work, with the principles of information and procedure of work in the information services and different types of library.

The chief objective of the courses is to increase work output and underline the role and importance of the information centre within individual institutions.

These are examples of the wide variety of courses offered:

- Mechanization of information processes
- Information retrieval
- Classification
- Co-ordinate indexing
- Cataloguing
- Library techniques
- Special librarianship
- Patents
- Dissemination of information
- Systems analysis
- Scientific literature
- Sources of technical information
- Information on a shoe-string
- Work with maps
- Standardization for documentation
- Gramophone record collections
- Report writing and preparation
- Personnel management for librarians
- Abstracting and preparation of abstracting publication
- Business information
- Information for management

Copies of a publication listing such short courses are available on request from the Office for Scientific and Technical Information, Elizabeth House, 39 York Road, London S.E.1.

LONDON

Assistant's certificate

The City and Guilds of London Institute awards Library Assistant's Certificates to students who pass the examination following a one-year course offered by the colleges listed below:

1. Aberystwyth College of Further Education
2. Aylesbury College of Further Education
3. Mander College, Bedford
4. Bradford Technical College
5. Bridgewater Technical College
6. Heriot-Watt University, Edinburgh
7. Telford College of Further Education, Edinburgh
8. Ewell Technical College
9. Central College of Commerce and Distribution, Glasgow E.1
10. Lincoln College of Technology, Lincoln
11. West London College
12. West Ham College of Further Education, London E.15
13. St. John's College of Further Education, Manchester
14. Motherwell Technical College, Motherwell
15. Newcastle-upon-Tyne College of Further Education
16. City College, Norwick
17. Oxford College of Further Education
18. Highbury Technical College, Portsmouth
19. Slough College of Technology
20. St. Albans College of Further Education
21. Stoke-on-Trent College of Building and Commerce
22. Trowbridge West Wilts College of Further Education
23. Wallasey Libraries, Wallasey
24. Walsall Staffordshire Technical College

UNITED STATES OF AMERICA

The term "documentation" as used in Europe has been supplanted in the United States by the term "information science", a broad term which is considered to better describe the great diversity of the field. The information sciences curricula are derived from many programmes, including library science, linguistics, systems engineering, business administration, information control, business data processing, editing and writing, archives management, communications and graphic arts.

As implied by the previous statement, the field of information science in the United States could be defined as that field of academic study and professional practice concerned with the nature, handling and function of information and with all aspects of its generation, control and use in society. Accordingly, many different curricula and course offerings have appeared in the various academic programmes.

A large number of schools in the United States offer work in the field of information science from differing points of view. For example, there are approximately 350 library schools offering library science courses; 41 of these programmes are accredited by the American Library Association. Of these, many are offering major or specific concentration in the information sciences on a degree granting basis, but all offer one or more courses in information science. Only those graduate library schools who have a major degree in information science or a heavy concentration of courses in the field are included in this survey.

Programmes are developing in departments or schools of Business administration, Public administration, Psychology, Engineering and the Computer sciences. Again, only those graduate programmes which provide the option to specialize in the area of information science are included.

The degree of detail in the description of the various programmes differs, depending on the amount of information that was made available. For further course descriptions, etc., inquiry should be made directly to the school.

UNIVERSITIES WITH PROGRAMMES IN INFORMATION SCIENCE

ATLANTA, Ga.

Georgia Institute of Technology, School of Information Science,

Atlanta, Georgia 30332

Director: Dr. V. Slamecka

Year of foundation of the School: 1963

POST-GRADUATE

The School of Information Science of the Georgia Institute of Technology was established in 1963, with the support of the National Science Foundation, as a graduate degree granting department of instruction and research. The school offers M.S. and Ph.D. degrees; its academic programmes endeavor to prepare students for advanced study and research in information science and for careers in information engineering.

Option I is concerned primarily with the theory of information processes and processors. The programme of study emphasizes semiotics, with broad foundations in several disciplines, including mathematics, logic, the study of language, the theory of systems, as well as areas in biological and behavioral sciences. Students are expected to proceed toward the doctorate and academic or research careers.

Option II has as its objective the professional education of engineers in the application of information processing devices and techniques in such processes as learning, problem solving and decision making, and in the design and operation of advanced information systems and networks (e.g. corporate, medical, library, educational, etc. information systems).

Option III is concerned with the professional education of computer systems engineers, and focuses on the design and study of advanced computing systems and utilities. The systems engineering approach and functional optimization of the design of computer systems and their components such as programming systems, languages etc. are emphasized.

With the partial support of a $ 450,000 grant by the National Science Foundation, the School of Information Science has established an informal, interdisciplinary centre for research in information science and engineering. The programmes of the research center are broadly consonant with the definitions of the areas of information science and engineering reflected in the curricula of the Georgia Institute of Technology, so as to complement the education in information science and related disciplines and to provide a pool of research opportunities at the graduate level.

To fulfill the requirements for the Master's degree, students must successfully complete at least 50 quarter hours. Approximately one-third of the 50 quarter hours is elective, either as course work or thesis; however, only students with a substantial background in information science will be encouraged to present a thesis as part of the M.S. degree requirements.

Students wishing to pursue the Ph.D. degree may, with the permission of the School, by-pass the M.S. degree.

The doctoral programme is built on the substance of the Master's curricula which comprise, at present, one theory-oriented and two engineering directions of study. The former is concerned with the theory of the abstract information process and, more broadly, with metascience; the engineering directions of study are concerned with the design of information and computer systems. The areas of specialization at the Ph.D. level thus include such theoretical areas as information representation, measure and structure; mathematical logic, theory and design of language, and theory of the information process in natural systems and automata; and numerous aspects of information and computer systems engineering.

Programme

1. Digital computer organization and programming
2. Automatic data processing
3. Computer and programming systems
4. Introduction to information engineering

5. Languages for science and technology
6. Topics in linguistics
7. Problem solving
8. The literature of science and engineering
9. Mathematical techniques for information science
10. Elements of information theory
11. Information systems
12. Logistic systems
13. Logic design and switching theory
14. Non-numeric information processing
15. Computer systems
16. Communication and control of information
17. Syntax of natural languages
18. Mathematical linguistics
19. Information representation and structures
20. Graph theory
21. Information control methods
22. Theory of classification and indexing
23. Cybernetics
24. Theory of models
25. Equipment of information systems
26. Information systems design
27. Problems in systems design
28. Advanced semiotics
29. Advanced logic
30. Philosophy of mind
31. Advanced computer organization
32. Computer techniques for information storage and retrieval
33. Design of computer operating systems
34. Computer language design
35. Organization and management of information industry
36. Philosophy of language
37. Theory of automata
38. Information systems optimization
39. Syntax-directed compilation
40. Special problems in information science

Conditions of admission	B.S. degree; mathematics background in calculus, differential equations, introductory modern algebra, probability theory and statistics, computer programming
Are foreign participants allowed	Yes
Conditions of admission	As above; adequate knowledge of English
Duration of training	M.S. programme: average 5 academic quarters (15 months)
Degrees or other qualifications granted	M.S., Ph.D.
Tuition fees	$ 1065 per academic year for out-of-state students

Financial aid for trainees

Qualified students admitted to full graduate status of the Master's programme are eligible for a graduate teaching or research assistantship. Incumbents are expected to instruct sections of certain courses or participate in the research programme of the School of Information Science; their assignment is at the discretion of the School.

Graduate assistantships are considered a form of employment by the Institute, and performance is evaluated accordingly. A graduate teaching or research assistantship at the M.S. level currently pays $ 233 per month on a one-third time basis, in return for 13 work per week, and it carries on out-of-state tuition waiver. Students holding such an assistantship may carry a full academic load of 12 hours per quarter.

Qualified students in the doctoral programme may apply for research associateships, available at the rate of $ 11,000 (full-time, 12 months equivalent salary).

BETHLEHEM, Pa.

Lehigh University, Graduate Studies and Research in the Information Sciences,

Bethlehem, Pennsylvania 18015

POST-GRADUATE

The Division of the Information Sciences, within the Department of Philosophy, offers a M.S. programme in the Information Sciences, designed to fulfill several objectives. First, it provides a broad base of both theory and application for those who will be concerned with the design, operation and management of information retrieval systems. As such it may be considered a terminal degree. Secondly, the programme offers a foundation for the growth and development of individual research interest and further graduate study. The Department of Philosophy offers a doctoral programme in the foundations of the information sciences. Related doctoral programmes, for qualified candidates, also exist in the Departments of Psychology and Industrial Engineering.

There are 3 options within the programme: Foundations of information science, Interface and behavioral problems, and Systems. There is considerable overlap between the three options, since there is a common kernel of theory. Each option thus represents a different application of theory, or a different kind of specialization. The Foundations option is fully developed and serves approximately 20 Ph.D. candidates.

The interface and behavioral option is now under intensive development and involves Prof. Rubenstein and faculty from the departments of psychology, social relations and industrial engineering.

The Systems option is also under initial development. The necessary courses and expertise are already available in several departments, and the option is now being formalized with the co-operation of the departments of industrial engineering and electrical engineering.

The Division is closely linked to the Centre for the Information Sciences through which a broad range of research is conducted. Current research is conducted in such areas as computational linguistics, document retrieval theory relevance, methodology of evaluation of retrieval systems, the man-system interface in libraries, linguistic style variation, automatic indexing, experimental system design, and library systems analysis. This research is done in collaboration with interested departments across the campus.

Programme

1. Computers and language
2. Descriptive linguistics
3. Psycholinguistics
4. Theory of formal grammars
5. Information retrieval theory
6. Seminar in psycholinguistics
7. Seminar in semantic analysis
8. Special topics in linguistics
9. Analysis of information
10. Subject document retrieval
11. Mechanized subject document retrieval
12. Retrieval system evaluation
13. Retrieval languages
14. Mathematical models in linguistics
15. Retrieval structures
16. Special topics in the information sciences

Conditions of admission

The curriculum is based on a B.S. degree in an engineering or scientific discipline. Desirable preparation consists of at least 12 hours of mathematics, including one course beyond the calculus. In recognition of the flexibility and cross-discipline nature of the subject, exception to this requirement may be granted to those students with training in a systematic science. A course in computer programming or programming experience is required. Mathematics, computer programming, is available, without graduate credit, for those without this background

Degrees or other qualifications granted	M.S.
Financial aid for trainees	A limited number of fellowships and research assistantships are available; these will be awarded on a competitive basis

BLOOMINGTON, Ind.

Indiana University, Graduate Library School,

University Library Building, Bloomington, Indiana 47401

Dean: B.M. Fry

Year of foundation of the courses: 1966

POST-GRADUATE

The purpose of the Graduate Library School is three-fold:

1. To educate the librarian to assume a responsible, professional role by providing him with a) an understanding of the library and information centre in society; b) an appreciation of their role in the history of the communication of recorded ideas; c) a knowledge of the principles and practices of library and information centre organization and administration; d) familiarity with the bibliography, and literature of the humanities, natural sciences and social sciences; e) the ability to evaluate, interpret, and stimulate use of all types of material,print and non-print; and f) a basic competence in the application of research methods.
2. To provide means for the continuing education of practising librarians and information scientists in a time of rapidly changing disciplines.
3. To provide for the advanced education of library administrators, research personnel, and library and information science teachers by means of a programme leading to the Ph.D. degree. The doctoral programme in librarianship and information science offers an opportunity to acquire a) a broader understanding of librarianship and information science; b) thorough knowledge of a special area of the profession and further study in an allied area; and c) an ability to analyse problems and conduct research concerning them.

The Curriculum Committee of the Graduate Library School has been working for the past two years (since becoming a separate professional school) to re-evaluate the course structure in light of new graduate demands and a body of knowledge and expertise which is rapidly changing. It began this re-evaluation by determining the aspects which it feels every library school student must have. From these aspects a basic core of courses was drawn up. The nature of several continuing courses was altered to reflect an infusion of elements of information science into traditional librarianship. A new approach, new emphasis, new techniques and new ideas in instruction were incorporated into revised courses.

In addition, an expanded curriculum for the information sciences, beginning 1968-9, was developed including six new courses. The curriculum for the information sciences outlined has several objectives in mind: there is the immediate need for an integrated programme that will allow the M.L.S. student to get some fundamental work and some advanced work in information science; it will also provide the Ph.D. student with an interest in majoring in information science with opportunity to branch out in the higher level courses and then concentrate in considerable depth at the doctoral level. It also includes the appropriate framework for an outside minor candidate in another discipline. It is also closely tied to the more traditional library science courses to allow for the eventual development of a Masters in Information Science without causing a complete disruption of the programme.

In essence, the Graduate Library School is trying to abstract from traditional library course content that which is intellectually visible and to retain it, but to eliminate all that is descriptive, routine and pedestrian. To that which remains of traditional library ingredients, we have grafted on or added courses in theory and principles of information science and engineering.

Programme

1. Introduction to information science
2. Mechanization of library technical processes
3. Computer applications in information systems
4. Information storage and retrieval - methods and techniques
5. Systems analysis and design
6. Information systems administration
7. Advanced theory of information science
8. Independent study in information systems

Conditions of admission

All prospective graduate students, including graduates of Indiana University must make formal application by July 15, December 15, or April 15, before matriculation. International students must apply by February 1. Application forms, available in the Office of the Graduate Library School, must be accompanied by one transcript of all college and university work. Indiana University graduates should request the Registrar's Office to send unofficial copies of their transcripts to the Office of the Graduate Library School. A fee of $ 10 is required for all new applicants to the University (not required from persons who have previously attended University as regularly admitted students). In addition the student must meet the following requirements:

1. Evidence of ability to pursue graduate work in library science:
   a) a cumulative average of 3.0 (4.0 equals A) in the total undergraduate program, or
   b) a cumulative average of 3.0 in the latest 60 semester hours of undergraduate work, or in the latest 60 semester hours of combined undergraduate and graduate work.

   An applicant who fails to meet either requirement a) or b) above but has achieved high scores on the Aptitude Test of the Graduate Record Examination may submit these scores in support of the application.
2. In addition to a good scholarship record, undergraduate preparation must include three years of general education distributed among the social sciences, biological and physical sciences, literature, and other areas of the humanities. An applicant who has deficiencies in one or more subjects may be admitted conditionally until these deficiencies are removed, provided they do not exceed 15 semester hours of credit. A major in a liberal arts subject is required.
3. Good physical and mental health
4. Ability to use correct, clear, effective English

Additional requirements for admission to the Ph.D. programme include the degree of Master of Library Science from Indiana University or a master's degree in library science from another library school accredited by the American Library Association. Ordinarily an average of 3.5 (4.0 equals A) is required. Acceptable library experience is also a requirement.

Are foreign participants allowed	Yes
Conditions of admission	Same as for U.S. students
Duration of training	M.L.S. degree: completion of 36 semester hours (usually 2 semesters and

	one summer) Ph.D. degree: completion of approximately 90 semester hours, including thesis (about 3 years)
Degrees or other qualifications granted	Master of Library Science (M.L.S.) Master of Library Science - Information Specialist (Chemistry) (M.L.S.) Ph.D. in Library and Information Science
Financial aid for trainees	Each year the Graduate Library School awards a limited number of University Fellowships of $ 1800 to $ 2200 each, provided by the Indiana University Office for Research and Advanced Studies. Graduate Fellowships of $ 1,500 each are offered annually by the Graduate Library School. Recipients of these fellowships pay in-state fees During the academic year 1968-9, the School awarded master's degree fellowships of $ 2200 each and Ph.D. degree fellowships of $ 5000 each plus stipends for dependents, and exemption from all fees under a grant from the U.S. Office of Education. The Graduate Library School awards also five scholarships for the academic year which remit all except $ 59 of the basic fees each semester. It also awards five scholarships for the Regular Summer Session which remit all except $ 29.50 of the basic fees. Also offered are Graduate Assistants, Teaching Associates, Indiana Library Association Scholarships, Indiana School Librarians Association Scholarships, Indiana State Library Scholarships, Residence Scholarship Plan, and Library Intern Programme
Number of trainees (number of graduates to date)	650 M.L.S., 2 Ph.D.

BROOKLYN, N.Y.

Pratt Institute, Graduate School of Library and Information Science,
Brooklyn, New York

Dean: Dr. N. Sharify

Year of foundation of the courses: 1969

POST-GRADUATE

The Institute offers a full range of courses for specialization in information science. Further, Introduction to Information Science is a course required of all students whether they intend to become information scientists or not. The curriculum in information science is supplemented by the opportunities for demonstrations and research offered by the Institute.

In addition to providing training in information science as well as the more traditional areas of librarianship, the Institute offers another dimension, the international, with a full range of courses covering the international aspects of librarianship and information science. A newly established Center for International Librarianship Studies provides a service and research are for this part of the programme.

Programme

1. Introduction to information science
2. Abstracting and indexing
3. Communications
4. Information storage and retrieval systems
5. Automated library operations
6. The place of language in communication
7. Specialized information centres

Conditions of admission	Baccalaureate degree from an accredited college or university representing sound, basic training in the humanities, social sciences or sciences
Are foreign participants allowed	Yes
Conditions of admission	The equivalent of the qualifications for admission required of students from the United States
Duration of training	36 credits (12 courses)
Degrees or other qualifications granted	M.L.S.
Tuition fees	$ 57 per credit
Financial aid for trainees	- Federal Title II Fellowships - Olive Bishop Price Fellowship in International Librarianship - Mary Wright Plummer Scholarship - Alumni Association Scholarship

BUFFALO, N.Y.

State University of New York at Buffalo, School of Information and Library Studies,
Buffalo, New York 14214

Dean: E. Giuliano

Year of foundation of the courses: 1968

POST-GRADUATE

The aim of the School of Information and Library Studies is to train specialists in the research and development activities needed to advance the profession of librarianship.

Another aim of the School is to train leaders for the future development of the profession of Librarianship.

Graduates of the School of Information and Library Studies will have the ability to: 1. assume the professional responsibilities of practising librarianship; 2. understand cognitively and practically contemporary aspects of librarianship, including new media, information systems and effective management; 3. explore the theories of and to develop skills relating to knowledge representation, storage, transfer, and its utilization; 4. understand and advance the states of technologies and methodologies appropriate to the future of librarianship; and 5. further research and development on knowledge transfer methodologies and systems.

The student is required to take the following prerequisites: languages of the World and introduction to computer science. Those students who do not have a background in computer science may take linguistics instead.

Programme

1. Librarianship/information science in the communication process
2. Resources: appraisal, acquistion and organization
3. Resources and services: reference and bibliography
4. Information networks: current technology
5. Administration and management: applied social sciences
6. Information systems and science
7. Automated library systems
8. Special topics in information systems and technology
9. Computer science, computational linguistics
10. Research methods for information science and libraries
11. Resources and services: subject
12. Context analysis: subject and descriptive
13. International publishing and bibliographic resources
14. Knowledge representation: form and flow
15. Information system management theory and practice

Conditions of admission Students applying for admission should have received at least a bachelor's degree in the liberal arts of the sciences, or in a subject discipline appropriate for

	special library services such as art, music, education, law or business. Admissability is based upon a student's academic qualifications as well as other indications of his potential for success in graduate work in Information and Library Studies. In addition, the aptitude section of the Graduate Record Examination is required.
Are foreign participants allowed	Yes
Conditions of admission	Admission standards plus evidence of use and comprehension of English
Duration of training	For a full time student: 2 semesters and a summer session would be minimal time; however, the 36 credit hours may be secured over a three years' period
Degrees or other qualifications granted	M.L.S. (currently being awarded to all graduates whatever the specialization within the school)
Tuition fees	For graduate courses: $ 60 per credit hour. M.L.S. degree requires completion of 36 credit hours minimally
Financial aid for trainees	Remission of tuition possible under certain circumstances; Graduate Assistantships available; Work-Study programmes supported by libraries within the vicinity. Special scholarships have not yet been designated

CHICAGO, Ill.

University of Chicago, Graduate Library School,
1116 East 59th Street, Chicago, Ill. 60636

Dean: D.R. Swanson

Year of foundation of the courses: 1928 (certain changes in 1963 as noted below)

POST-GRADUATE

The programme in librarianship began in 1928. Throughout its history the Graduate Library School has attempted to identify and emphasize principles and intellectual foundations of librarianship. These principles must necessarily go well beyond the bounds of current vocational practice if libraries of the future are to be soundly conceived and designed. With this emphasis upon principles and upon the planning of future library systems, the dividing line between library science and information science is uncertain at best.

In 1963 and 1964 a number of new courses on subjects related to information retrieval, automatic indexing, computer programming and organization, mechanical translation, and systems planning were added to the curriculum. A special effort was made to identify and to encourage students to take advantage of courses related to these fields offered in other departments and divisons of the university, particularly those courses in computer science offered by the Committee on Information Sciences.

Both the M.A. and Ph.D. programmes require a dissertation. Many of these have been in the field of information science, but at least all of them have served to make the conduct of research an integral and important part of the training programme in librarianship. Subject specialities in which dissertation research has been and is being carried out are exemplified by the following: public libraries; society and use of libraries; comparative librarianship; book selection; children's literature; libraries for children and young people; reading interests of youth; storytelling; college and university libraries; research library resources; scholarly communication; cataloguing and classification; art and music in the library; history of printing and publishing; history of libraries; history and bibliography of science and technology; biomedical information systems; information systems; computer applications; theories of indexing, subject analysis and classification; mechanical translation; language processing; symbolic processes; coding, organization and searching of information; Chinese bibliography.

Programme

1. Library systems planning
2. Language, symbolic process and computers
3. Biomedical information
4. Theories of indexing and information retrieval
5. Algorithmic syntax
6. Mechanical translation and language processing
7. Information storage and searching

Courses offered in other departments and divisions of the University related to information science are:

- Introduction to biomedical application of computers
- Digital computer techniques
- Information and computers
- Digital computers and applications
- Organization of computer systems
- Coding and switching theory
- Automata theory
- Algorithmic languages
- Computer operating systems
- Numeric processing
- Artificial intelligence
- Probability and statistical inference
- Mathematical analysis for business decisions

- Linear transformations, modules and matrices
- Information theory
- Applied combinatorics
- Mathematical logic
- Semantics

Conditions of admission	For the M.A. programme - bachelor's degree or its equivalent is required. Since the school is small, admission is necessarily selective and based upon the student's undergraduate academic record, performace on the Graduate Record Examination (Aptitude Test), letters of reference, the student's own purposes and objectives and in some cases on a personal interview. For the Ph.D. programme- normally a student must have a Master's degree or equivalent in order to enter the Ph.D. programme. Admission to candidacy, however, is contingent upon the student's performance on a series of preliminary examinations and upon a satisfactory written thesis proposal, and an oral examination based upon the proposal
Are foreign participants allowed	Yes
Conditions of admission	Same as for American students plus satisfactory performance on a test of English as a foreign language
Duration of training	Approximately 6 quarters - 1½ years (5 quarters of courses plus an M.A. thesis). For the Ph.D. programme: minimum of three full quarters of residence plus dissertation. This usually requires from two to three years beyond the Master's degree
Degrees or other qualifications granted	M.A. and Ph.D. in Library Science
Tuition fees	$ 700 per quarter for a full academic programme of three courses
Financial aid for trainees	Approximately 30 scholarships and fellowships are awarded by the University. A number of fellowships for M.A. candidates and Ph.D. candidates ($ 2,200 and $ 5,000, respectively, tuition free) are supported by the U.S. Office of Education.

	Six pre-doctoral and two post-doctoral training stipends ($ 2,400 and $ 6,000, respectively, tuition free) for medical librarianship are also available, under a programme sponsored by the National Library of Medicine
Number of trainees (number of graduates to date)	Since 1928: Ph.D. - 100; M.A. - 503; B.L.S. - 209 Since 1963: Ph.D. - 7; M.A. - 163

CLEVELAND, Ohio

Case Western Reserve University, Documentation and Information Science,
11161 East Boulevard, Cleveland, Ohio 44106

Dean: J.H. Shera

Year of foundation of the courses: Masters programme - 1955
Ph.D. programme - 1962

POST-GRADUATE

There are at present two programmes in Documentation and Information Science at different levels of education and achievement. The first, at Master's level, is an introductory programme. Its objective is to equip students to work in existing and evolving libraries and information centres.

The second programme at the doctoral level is a research programme providing for advanced professional study and research in library and information science. Curricular flexibility and interdepartmental dialogue are basic to this programme. It includes a ground structure which is favorable to student initiative and free inquiry within a wide spectrum of instructional opportunities, permitting study and fairly sophisticated operational implementation of applications throughout the University.

Programme

1. Foundations of library science
2. Information sources and services
3. Automation of library processes
4. Information retrieval systems
5. Information retrieval systems laboratory
6. Information processing on computers
7. Automatic language processing
8. Specialized information centres and services
9. The literature of the humanities
10. The literature of the social sciences
11. Systems analysis in information science
12. Self-organizing systems
13. Linguistics for information science

Conditions of admission	For Masters programme: Baccalaureate degree from an approved college or university; 2.7 average; at least 3/4 programme in liberal arts. Reading knowledge of one modern foreign language. Acceptable Graduate Record Examination scores in one Advanced Test and in Aptitude Tests. Personal qualifications as attested by references and personal interview For the Ph.D. the same as above plus a Master's degree in Library Science or in appropriate subject discipline from an accredited library school, and significant professional experience
Are foreign participants allowed	Yes
Conditions of admission	Same as above - plus evidence of fluency in English and adequate financial support
Duration of training	M.S. in L.S. one calendar year (minimum), i.e. summer session and academic year Ph.D. approximately three academic years
Degrees or other qualifications granted	Master of Science in Library Science Ph.D.
Tuition fees	For 1969-70: $ 1825 per academic year; $ 438 per 6 weeks Summer Session For 1970-71: $ 2000 per academic year; $ 152 per 6 weeks Summer Session
Financial aid for trainees	- Limited number of scholarships and fellowships - including waiver of tuition - Waiver of tuition plus stipend of $ 2000-$ 5000 - Teaching fellowships
Number of trainees (number of graduates to date)	Ph.D. - 4 M.S. - 150 (approximately)

COLLEGE PARK, Md.

University of Maryland, School of Library and Information Services,
College Park, Maryland 20742

Dean: P. Wasserman

Year of foundation of the programme: 1965

POST-GRADUATE

Preparation of information scientists is conducted as part of the general curriculum in librarianship. Particular courses within the programme have been identified as being particularly relevant for those interested in information science. The School's programme for the Master of Library Science degree requires 36 hours of course work to be completed within a period no longer than 3 academic years. 24 of these hours are taken up with required courses, designed to introduce the student to the broad range of disciplines relevant to librarianship and equally relevant to the responsibilities of the information scientist. They also provide the necessary background for the more specialized courses.

The required courses are followed by elective offerings open to the student based upon his personal requirements and choices; these are selected in consultation with his advisor and his programme is designed to meet his own particular career interests and objectives. Those students who specialize in information science will normally develop their range of courses in consultation with faculty members who particularly concentrate their attention upon information science.

Programme

1. Introduction to data processing for libraries
2. Organization of knowledge in libraries
3. Literature and research in the sciences
4. Construction and maintenance of index languages
5. Research methods in library and information activity
6. Introduction to reprography
7. Information systems design
8. Library systems

Conditions of admission

Admission as a student to the School is limited to individuals who hold the bachelor's degree from recognized colleges, universities or professional schools in this country or abroad or to those who can give evidence of successful completion of equivalent courses of study. The individual's undergraduate academic record is of primary importance as an indication of his competence to carry forward graduate study in librarianship, but several other factors are also taken into account. Although no specific undergraduate courses are required for admission to the school, those who seek admission must have completed a broad

	arts and sciences programme with strength in the humanities, social sciences and physical or biological sciences. One year of college level foreign language course work or demonstration in examination of language competence is also required for admission. Such study must be in French, German, Spanish or Russian. While no particular courses are required, the faculty views undergraduate course work in mathematics, the social sciences, and the physical and biological sciences as especially relevant to some of the newer directions in the field. Undergraduate courses in librarianship do not enhance the student's eligibility for admission, nor do they necessarily assure satisfactory academic performance in the School
Are foreign participants allowed	Yes
Conditions of admission	Same as above, plus proficiency in English Foreign students are normally accepted only on a full-time basis at the University of Maryland and should estimate their educational and living expenses at approximately $ 275 a month or a minimum of $ 3,300 a year, including the expenses of two semesters and one Summer School session
Duration of training	The Master of Library Science degree will be awarded to those students who successfully complete within three years from their first registration in the School, a programme of 36 hours, with an average of "B". Under a full-time programme a student normally completes semester hours during the fall and spring semesters and 6 hours during the summer term
Degrees or other qualifications granted	Master of Library Science
Tuition fees	Effective with the summer session 1968, the tuition rate is $ 30 per credit hour for Maryland residents and $ 36 per credit hour for out-of-state residents

Financial aid for trainees	A number of fellowships and assistantships are available, but these are reserved for the more superior applicants
Number of trainees (number of graduates to date)	156

COLUMBUS, Ohio

The Ohio State University, Department of Computer and Information Science, 400 Caldwell Laboratories, 2024 Neil Avenue, Columbus, Ohio 43210

Dr. M.C. Yovits

Year of foundation: 1966

POST-GRADUATE

The programme emphasizes education, research, and the professional practice and application of computer and information science. The educational programme offers undergraduate and graduate degrees through the Ph.D. The research activities which are a central part of the programme consist of a broad conceptual base supported in major part by a grant from the National Science Foundation, as well as a number of smaller and more practically oriented contracts and grants. The broad core research programme and these other research tasks interact to form an integrated framework.

The programme of the Department of Computer and Information Science is interdisciplinary in that many other departments on the campus deal with specific applications of computer and information science. It is therefore desirable that students in computer and information science be encouraged to develop a background in these fields. The departments representing these fields are encouraged to co-operate in the research and academic efforts in computer and information science.

The Department has developed and will continue to develop courses related to the general properties of computer and information problems and to their practical and generalized solutions.

Those instructional areas which are emphasized by the Department of Computer and Information Science are as follows: general theory of information; information storage and retrieval; theory of automata, finite state machines, and computability; artificial intelligence, self-organizing and adaptive systems; pattern recognition.

Programme

1. Digital computer programming for social scientists
2. Digital computer programming
3. Survey of numerical methods
4. Introduction to information storage and retrieval
5. Numerical analysis

Conditions of admission	Basic requirements for admission to the Graduate School are established by the Graduate Council, a re-

presentative body of the graduate faculty. Minimum requirements include:

1. A baccalaureate or professional degree earned from a department of approved standing and granted by an accredited college or university
2. At least a 2.7 cumulative point-hour ratio (on the basis of the 4.0 grading system of the Ohio State University) for all previous academic work
3. Prerequisite academic work which gives evidence that the applicant should be able to pursue effectively the graduate courses of the department in which he wishes to specialize

In addition to the Graduate School requirements, the department requires that each student present evidence of credit for the following (or equivalent):

1. Programming I and II
2. Mathematics through the calculus
3. 10 additional quarter hours of mathematics or computer and information science

These requirements may, at the discretion of the Graduate Committee, be relaxed for otherwise exceptionally qualified students

Are foreign participants allowed	Yes
Conditions of admission	Same as U.S. Speaking knowledge of English required
Duration of training	Ph.D. - 4 years M.S. - 2 years
Degrees or other qualifications granted	Ph.D., M.S., B.S. in CIS, B.S. and B.A.
Tuition fees	$ 145 per quarter
Financial aid for trainees	Fellowships, teaching assistantships, and research assistantships are available
Number of trainees (number of graduates to date)	64

DAYTON, Ohio

University of Dayton, Master of Science in Information Science,
300 College Park, Dayton, Ohio 45409

A. Debons, Ph.D.

Year of foundation of the courses: 1967

POST-GRADUATE

The Master of Science programme in Information Science represents an interdisciplinary approach. The programme provides an integrated outlook for the application of computer, mathematics, psychological and engineering principles for the receipt, classification, communication, cataloguing, storing and retrieval of data and information regardless of its subject matter. It provides training in the underlying concepts of information and its use as it relates to various fields, particularly to benavioral and social sciences.

Individuals completing the programme are expected to be sufficiently trained to cope with problems emerging in the development and implementation of information handling systems in general and computer-based systems in particular. Examples of such systems are automated library environments, military command and control, community data systems, medical diagnostic and computerized educational systems.

Programme

1. Mathematics and information science
2. Advanced statistical application to information science
3. Communication theory
4. Foundations of behavioral theory
5. Information system technology
6. Information presentation
7. Organization and retrieval of information

Conditions of admission	B.A. or B.S. in Physical Science or Behavioral Science with completion to calculus and knowledge of a computer programming and statistics
Are foreign participants allowed	Yes
Conditions of admission	Facility in the use of English
Duration of training	2 years
Degrees or other qualifications granted	Master of Science in Information Science
Tuition fees	$38.00 tuition for courses taken for graduate credit per registered credit hour for lecture course

Financial aid for trainees	Students may apply for assistantships when they apply for admittance to the graduate programme. Applications are received up to March 1 and students are informed by April 1 of the action on their application for assistantships. Assistantships are awarded primarily on the quality of the academic background of the individual
Number of trainees (number of graduates to date)	2 in December, 1968

LOS ANGELES, Calif.

University of California
405 Hilgrad Avenue, Los Angeles, California 90024

Programme A: Prof. R.M. Hayes
Programme B: Dean A. Horn
Programme C: (Miss) L. Darling
Programme D: Prof. M. Melkanoff

Year of foundation of the programmes A - 1965, B - 1967, C - 1961, D - 1968

POST-GRADUATE

A. The M.S.I.S. degree programme is an interdisciplinary course of study and research in the theoretical foundations of information handling. It is intended to prepare "information scientists" (i.e. persons dealing with the general problems of information handling per se rather than application to a specific discipline). The student is required to gain a working knowledge of the mathematics required for system design and evaluation, and familiarity with the tools of librarianship and their use in information services. He is required to learn the techniques of management, including cost accounting, as they apply to information activities, to gain proficiency in computer programming, and to write a thesis representing an original contribution to the field of information science.

B. Some suggested fields of specialization are: science and engineering librarianship, library systems, analysis and automation, rare books and manuscripts, library programmes in archives, map librarianship, etc. Applicants are not discouraged from proposing fields other than those mentioned above. Applicants may be asked to broaden or narrow their proposed fields of specialization. This modification will be proposed before the fellowship award is made, and must be acceptable to the applicant.

C. The Biomedical Library at the University of California offers four one-year internships annually. Time is divided between planned training in medical librarianship and formal course work selected from: biological sciences, history of medicine, information science, and foreign languages, depending upon the academic background and interests of the trainees. Work assignments are made on a rotating basis in the library's divisions and for shorter periods in the UCLA Medlars Search Station, the Brain Information Service and the Technical Processes Automation Project. These are supplemented by readings, discussions with staff members, visits to other libraries and attendance at professional meetings.

D. In the past ten years the School of Engineering has developed a programme of study, research and development on computers and their application, within the Information System Division. This programme has culminated into the establishment of three fields - system design, numeric application and computer languages, acceptable for the Ph.D. in Engineering. The primary aim of computer science is to enhance scholarly advance by increasing our understanding of what constitute realizable models and in extending the scope of realizability. Thus the School of Engineering provides a natural focus for the expansion of its present programme into a campus-wide programme in Computer Sciences.

Programme

1. Methods of information systems analysis and design
2. Operations research and techniques
3. Cataloguing and classification
4. Comprehensive bibliography
5. Specialized bibliography
6. Managerial accounting
7. Types of library
8. Management of libraries
9. Computer programming
10. Applications of computer
11. Seminar in information science
12. Data base systems
13. Information retrieval systems
14. Management information systems
15. Library data processing

Additional courses are available in the Departments of Business Administration, Computer Science, Engineering, Mathematics and Psychology

Conditions of admission	A. - B.A. and Calculus B. - M.L.S. C. - M.L.S. D. - B.A. (in Mathematics, Engineering or Physical Science)
Are foreign participants allowed	Yes
Conditions of admission	Same as above

Duration of training	A. - Two years B. - One year C. - One year D. - One of five years (for Ph.D.)
Degrees or other qualifications granted	A. - M.S.I.S. (DOC) - Master of Science in Information Science (Documentation) B. - Certificate of Specialization in Library System Analysis C. - Certificate of Specialization in Library System Analysis D. - Ph.D. and M.S.
Tuition fees	Incidental fees for California residents total $105 per quarter; incidental fees and tuition for non-residents of California total $505 per quarter
Financial aid for trainees	A. Stipend form the National Library of Medicine, Research Assistantships in Institute of Library Research B. Research Assistantships in ILR. Fellowships under Title II-B of the Higher Education Act of 1965 C. Support by USPHS D. No special support, but scholarships and assistantships are available

MINNEAPOLIS, Minn.

University of Minnesota, Library School,
Minneapolis, Minnesota 55455

D.K. Berninghausen

Year of foundation of the course: 1965

POST-GRADUATE

The Graduate School offers the Master's degree under two plans: Plan A, including a thesis and Plan B, which substitutes additional course work and research paper for a thesis. Programmes of study leading to a M.A. degree will be planned according to special abilities, backgrounds, and aims of the individual student.

Plan A with thesis requires the following courses: library administration; reference; selection; cataloguing and classification; special libraries; library mechanization; information retrieval; and 3 outside courses in computer programming, mathematics, logic linguistics, management systems, etc.

Plan B requires approximately the same courses with 9 credits devoted to additional course work and research papers rather than to a thesis.

This programme is intended for librarians who wish competency in mechanization and information retrieval. At least 9 credits outside the library school offerings are required. Considerable flexibility in programme planning for individual students is possible, and some programmes might include 9 credits in computer programming and 9 credits in mathematics if desirable.

Programme

1. Library mechnazation
2. Information retrieval
3. Biomedical computing
4. Computer applications
5. Theory, programming modern digital computers
6. Use of computers in business research
7. Introduction to general linguistics
8. Mathematical linguistics
9. Descriptive linguistics
10. Systems and procedures analysis
11. Data processing systems
12. Decision making and operations analysis
13. Introduction to industrial engineering
14. Introduction to work analysis
15. Introduction to operations research
16. Dynamics of human communication
17. Science communication
18. Interpretation of science and technology
19. Speech and language in human behavior
20. Mathematical logic
21. Advanced logic
22. Topics in logic
23. Philosophy of logic

Conditions of admission	For short training programmes: a graduate degree from an ALA accredited library school and admission to the graduate school For MA programme: admission to graduate school
Are foreign participants allowed	Yes
Conditions of admission	Admission to the Graduate School
Duration of training	12 to 15 months
Degrees or other qualifications granted	Master of Arts
Tuition fees	1968: 6 credits or less - Resident $ 52 + $ 37 incidental fee - Nonresident $ 140 + $ 37 Over 6 credits - Resident $104 + $37 incidental fee - Nonresident $280 + $37

	Summer Session (5 weeks) - $59.00 for 4 credits, $72.00 for over 4 credits
Financial aid for trainees	For biomedical librarians $200 per month plus free tuition Higher Education Act fellows $2650 plus free tuition
Number of trainees (Number of graduates to date)	No breakdown of MA graduates showing how many have taken these courses; 15 biomedical librarian fellows have done so

NEW BRUNSWICK, N.J.

Rutgers, The State University of New Jersey, Graduate School of Library Service,

New Brunswick, N.J. 08903

Dean: N. Harlow

Year of foundation of the courses: 1954

POST-GRADUATE

The programme at the master's level is designed to prepare persons to work in libraries and information centres in school, public, academic and research libraries; a basic, integrated programme of studies (composed of seven of the total of twelve courses) is intended to develop a knowledge of principles, concepts, and analytical processes in preparation for future professional responsibility and practice. The content of the basic courses pertain to all types of library and information service (for example, there are "required" courses in systems analysis, public administration, bibliographic organization and description, in criteria for selecting informational material, in planning services for specific communities of users, etc.) . Beyond this group are courses which support specialization in areas of interest(academic, special, public, school), including work which may be taken as "continuing education" subsequent to receipt of the M.L.S. degree.

The doctoral programme emphasizes research and prepares persons for careers in research, for teaching in higher education, and (by developing capability in critical analysis and an understanding of the values and methods of research) for positions of major responsibility in the field. It is built upon a series of seminars intended to develop a comprehensive view of the field of librarianship and information science and an understanding of what the issues and problems are. At Rutgers, study is carried on through small seminars under the guidance of distinguished faculty, and there is a continuing close relationship between a limited number of students and senior faculty members. The School works closely with the Department of Computer Science (with an on-line terminal providing access to an IBM 360/67), the Statistical Centre, Urban Studies, and a number of other university disciplines.

Programme

1. Systems analysis in library management
2. Information science and technology
3. Programming theory for information handling
4. Administration, theory and practice
5. Planning library services
6. Abstracting and indexing for information services
7. Sources of information in science and technology
8. Sources of information in business and technology
9. Sources of information in government publications
10. Seminar in research methods
11. Statistical theory for research workers
12. Seminar in information science
13. Seminar in research library administration
14. Seminar in technical services

Conditions of admission	1. Graduation from an approved institution of higher broad cultural background plus a field of specialization 2. Evidence of above average scholastic ability and promise for successful graduate study 3. Competence in a foreign language 4. Evidence of personal maturity and professional motivation
Are foreign participants allowed	Yes
Conditions of admission	Same requirements plus satisfactory scores in Test of English as a Foreign Language
Duration of training	M.L.S. programme requires one academic year (2 semesters and a Summer Session) or three semesters; it may be taken part-time in 3 years Ph.D., three years full-time
Degrees of other qualifications granted	Master of Library Service and Ph.D.
Tuition fees	Full-time student: $16 per credit hour ($440 a term) Part-time and Summer Session: $25 per credit hour
Financial aid for trainees	Several scholarships and fellowships from U.S. Office of Education, Library Services and Construction Act Funds (master's level). Several fellowships from U.S. Office of

Education, Higher Education Act Funds (master's and doctoral levels). Four University Research Assistantships. Three University Student Assistantships

Number of trainees (Number of graduates to date)

Master's programme: 1,524
Doctoral programme: 20

PHILADELPHIA, Pa.

Drexel Institute of Technology, Graduate School of Library Science,
32nd & Chestnut, Philadelphia, Pennsylvania 19104

G. Garrison

Year of foundation of the course: 1963

POST-GRADUATE

This curriculum is specifically designed to meet the educational requirements of: 1. Administrative personnel in science information departments; 2. Abstractors, translators, science literature and patent searchers; 3. Editorial personnel of science publications; 4. Computer centre staff members and computer salesmen and engineers; 5. Science researchers and instructors in information science.

The curriculum is comprised of 50 hours in required courses and an additional 10 hours of electives in one of five areas for a total of 60 quarter hours (40 semester hours), with no course grade lower than C and a weighted average of 3.00 the degree.

The required courses introduce the student to five major subject areas of information science and provide him with a general knowledge of the entire field. The required courses along with the thesis provide for concentration in various fields such as research, management, publication, instrumentation and science bibliography.

Programme

1. Principles of management
2. Reference materials in science and technology
3. Methods of research in librarianship
4. Science literature abstracting and indexing
5. Publication
6. Information centre administration
7. Instrumentation
8. Integration of the science information system
9. Search strategy

Conditions of admission

Applicants must hold the bachelor's degree from an accredited institution and must have a 3.00 grade point average (on 4 point scale) for last two years of undergraduate work.
In addition to the general admission

	requirements applicants for admission to the curriculum will: 1. preferably, have had undergraduate or graduate work in some of the following: calculus, statistics, linguistics, experimental methods, logic, systems analysis, operations research, algebra, electronics, communications, computer theory, psychology and sociology; 2. ideally, have had work experience in some of the following: indexing, literature searching, report writing, editing, photography, business administration, librarianship and translating
Are foreign participants allowed	Yes
Conditions of admission	In addition to above, students must demonstrate competence in English language
Duration of training	Four quarters (full-time) for 60 quarter hours of credit
Degrees or other qualifications granted	Master of Science (Information Science)
Tuition fees	$ 40 per quarter hour
Financial aid for trainees	Some state, federal and local funds available for scholarships and fellowships. Also, extensive opportunity for part-time jobs in the Philadelphia area
Number of trainees (number of graduates to date)	From 1963-1968: 12 graduates in Information Science

PITTSBURGH, Pa.

University of Pittsburgh, Graduate School of Library and Information Science,
Pittsburgh, Pennsylvania 15213

Dean: H. Lancour
Director of Knowledge Availability Systems Center: A. Kent

Year of foundation of the courses: 1963

POST-GRADUATE

The programme offers a series of courses in information science which covers topics in mathematics, computer programming and advanced applications in the literature fields. Both management information systems and administrative functions as well as the information storage and retrieval problems are dealt with. Advanced topics in information systems analysis and design are covered including such topics as finite state machines, information theory and coding theorems. The programme offers an M.L.S. degree and a Ph.D. A separate programme in information sciences is also being developed in the School of Engineering, Department of Industrial Engineering.

The M.S. and Ph.D. degree are offered in Management Systems and Operations Research. However, a student can develop a major in Information Engineering, covering the basic principles of information-systems design, organization and operation. These systems relate to management and information storage and retrieval; both small and large systems are considered. A student is expected to have acquired a strong background in mathematics, computer science, simulation, statistics and operations research.

Programme

1. Library systems analysis
2. Mechanized information retrieval for Ph.D. students
3. Specialized information centres
4. Mathematics in information storage and retrieval
5. Computers and logic in information retrieval
6. Data processing and the library
7. Linguistics and the library and information sciences
8. Languages for the library and information sciences
9. Administration of special libraries and information centres
10. Library networks
11. Research problems in information science
12. Language engineering

Conditions of admission	Baccalaureate degree
Are foreign participants allowed	Yes
Conditions of admission	Sufficient amount of English to do this work
Degrees or other qualifications granted	M.L.S., M.S. and Ph.D.
Duration of training	One calendar year for M.S. or M.L.S. Three calendar years for Ph.D.
Number of trainees (number of graduates to date)	Ph.D. - 0 M.L.S. in Information Science - approximately 50

TALLAHASSEE, Fla

Florida State University, Information Science and Technology,
Tallahassee, Florida 32306

Professor: Dr. G. Jahoda

Year of foundation of the courses: 1964

POST-GRADUATE

The Information Science and Technology programme leads towards the Master of Science degree in librarianship which consists of 60 quarter hours of class work and the equivalent of at least one quarter of directed work experience. The full-time student will be able to complete this programme in a minimum of 15 months, including the work experience. In addition to taking 33 quarter hours in basic librarianship required of all Library School students, the student takes 18 quarter hours in information science.

Programme

1. Information storage and retrieval systems
2. Abstracting and indexing
3. Information systems design and evaluation
4. Information resources and literature searching in science and technology
5. Information centre administration

Conditions of admission	Applicants must have a bachelor's degree with a B (3.0) average in the student's major and collateral courses, two years of a foreign language at the college level, and an acceptable score on the Graduate Record Examination. While the programme is slanted toward students with an undergraduate major in the physical or biological sciences, mathematics or engineering, applications from students with another undergraduate major will be considered.
Are foreign participants allowed	Yes
Conditions of admission	Proficiency in English; graduation from a 4-year college with a bachelor's degree
Duration of training	12 to 18 months
Degrees or other qualifications granted	Master of Science
Tuition fees	$ 125 per quarter for Florida residents; $ 325 per quarter for out-of-state students
Financial aid for trainees	Fellowships, scholarships
Number of trainees (number of graduates to date)	10 with specialty and several hundred library school students having taken one or more information science courses

URUGUAY

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

MONTEVIDEO

Escuela de Biblioteconomía, Universidad de la Republica (School of Librar
Science, University of the Republic), Montevideo

Director: Prof. E. Lerena Martinez

Year of foundation of the course: 1965

Course in Documentation

Programme

1. Documentation
2. Documents and document processing
3. Problems raised by the organization of scientific information
4. Linguistics problems
5. General theory of classification
6. Mechanization and automation
   a) Information storage and retrieval systems
   b) Semi-automatic information retrieval systems
   c) Systems based upon electric machines
   d) Photoelectric systems
   e) Computers
   f) Mechanical translation
7. Reprography
8. Reprography techniques in documentation organizations
9. Organization and administration of centres and documentation and information services
10. National, regional and international scientific and technical documentation services
11. Co-operation and co-ordination in the field of scientific and technical information

A period of practical training is included in the programme of training

Type of training	Documentation Institute as a part of the School of Library Science
Duration of training	3 years

YUGOSLAVIA

TRAINING INSTITUTIONS, CURRICULA AND OTHER INFORMATION

BELGRADE

Jugoslovenski Centar za Tehnicku i Naucnu Dokumentaciju (Yugoslav Centre for Technical and Scientific Documentation),
Admirala Geprata 16, Belgrade

Introductory course

Programme	hours lectures	 exercises
1. General principles of modern documentation and information	-	-
2. Special libraries	2	2
3. The card-index in documentation	2	-
4. Classification	3	6
5. Photo-reproduction	1	1
6. Writing of abstracts	2	2
7. Information as a result of documentation	2	2
8. Use of patents and standards in industry	1	-
9. Organization of documentation and information in industry and other institutions	2	-
10. Functions of the Yugoslav Centre and its co-operation with industry and other institutions	2	-
11. Discussions	1	
12. Visits to documentation centres in industrial or other institutions		

Conditions of admission	Specialists in various fields of science and technology, and librarians are admitted
Duration of training	One week
For what kind of work are the students being trained	Personnel of information centres
Examinations	None
Degrees or other qualifications granted	Certificate
Number of trainees	150 per year

ZAGREB

Centar za Studij Bibliotekarstwa, Dokumentacije i Informacionih Znanosti (Centre for the Study of Librarianship, Documentation and Information Sciences),
Trg maršala Tita 3, Zagreb

Professor: Dr. B. Težak

Year of foundation: 1963

POST-GRADUATE

Programme

First year

	hours lectures	seminars
1. Significance and structure of information	20	10
2. Documentation service	20	10
3. Library service	20	10
4. Classification	10	20
5. Cataloguing	10	30
6. Conventional and non-conventional publication	10	10
7. Bibliographies and reference material	10	20
8. Characteristics of users	10	10

Second year

	lectures	seminars
1. Documentation system for specially chosen scientific field (e.g. chemistry, biology, others)	12	24
2. Law, general regulations	6	12
3. Optional lectures (only one of these four is compulsory):		
a) Mathematical elements of information	9	18
b) Logical elements of information	9	18
c) Linguistic elements of information	9	18
d) Technical elements of information	9	18

During the 2nd year students must also register for practical work (60 hours) and a Master degree thesis (400 hours)

4. Facultative lectures:
Paleography, librarianship, (public, school,special, musical), archive, museology, preservation technique, arrangement of galleries and exhibits, translations and interpretation service, mechanical translation, cybernetics, editing and publishing, graphic arts and reprography, planning and building of libraries, and other areas of educational and scientific activities

Type of training	Interdepartmental study in Librarianship, Documentation and Information Science
Conditions of admission	University diploma - B.A., B.Sc., or higher level Other requirements: - knowledge of one world language reading ability of two more languages - typewriting ability acquintance with one of the reproduction techniques
Are foreign participants allowed	Yes
Conditions of admission	As for Yugoslavian students

Duration of training	Two, usually three years
For what kind of work are the students being trained	Librarians, special librarians, information scientists, subject information specialists
Examinations	Students take 7 examinations during their studies and a master's diploma examination
Degrees or other qualifications granted	The title is Magister, if the thesis is prepared and defended; or Specialist of Library (or Documentation or Information) Sciences, after examination and special training
Language of lectures	Croatian - Serbian (occasionally English)
Tuition fees	700 dinars
Financial aid for trainees	Various institutions grant fellowships for students
Number of trainees	Till now about 100 students registered; 11 have finished studies

Part II - Training of Users of Information

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GERMAN DEMOCRATIC REPUBLIC

ILMENAU

A 30-hours course on "Documentation and scientific information" has been held since 1967 at the Technische Hochschule (Technical University) in Ilmenau for students of all faculties.

Programme	hours
1. Role and aims of scientific information	3
2. Organization of scientific activity	1
3. Sources of scientific information	4
4. Classification of documents	1
5. Classification according to UDC	4
6. Methods of processing information and documentation	3
7. Information retrieval	5
8. Scientific information methods as applied to users' own research work	1
9. Patent information	7
10. Tests (formal and informal examinations)	1

In 1967/68 the State Secretariat for High and Vocational Schools recommended to all schools of engineering and other vocational training under this Secretariat to introduce a 16-hours course on "Information and documentation" as a regular and obligatory subject.

GERMANY

Courses for users of documentation in German universities and academies (the titles of lectures and seminars are subject to alteration).

BERLIN

Freie Universität Berlin (Free University of Berlin)

- Medical statistics and documentation for clinical physicians
- Introduction to documentation (with practical work)
- Language in documentation
- Problems of documentation and media
- The documentation centre and its users

Technische Universität Berlin (Technical University of Berlin)

- Theory and technology of electronic computers (with practical work)
- Statistical system theory and theory of information (with practical work)
- Main problems of technological documentation
- Systems of process control with digital and analogue computers
- Fundamental features of programming digital computers

Berliner Bibliothekarakademie (Berlin Library School)

- Introduction to documentation

BONN

Universität Bonn (University of Bonn)

- Introduction to medical statistics and documentation
- Introductory course for use and programming of electronic data processing equipment and punched cards machines for medical men

DÜSSELDORF

Universität Düsseldorf (University of Düsseldorf)

- Introduction to scientific work
- Medical books and periodicals and introduction to bibliography and documentation

FRANKFURT

Universität Frankfurt (University of Frankfurt)

- Introduction to modern literature in chemistry and physics (with practical work)

FREIBURG

Universität Freiburg/Br. (University of Freiburg/Br.)

- Fundamental principles of documentation (with practical work)
- Problems and methods in documentation of medical data

GIESSEN

Universität Giessen (University of Giessen)

- Introduction to scientific documentation

HANNOVER

Medizinische Hochschule Hannover (Higher Medical School of Hannover)

- Documentation problems

HEIDELBERG

Universität Heidelberg (University of Heidelberg)

- Introduction to medical documentation and statistics
- Introduction to scientific work in the field of data processing

KIEL

Universität Kiel (University of Kiel)

- Documentation of medical data with special consideration to automatic data processing
- Practical exercises on punched cards machines
- Medical bibliography and documentation of literature
- Statistical methods study for medical men (including documentation of medical data and automatic data processing)

MAINZ

Universität Mainz (University of Mainz)

- Introduction to programming of electronic computers for medical and statistical tasks

MARBURG

Universität Marburg (University of Marburg)

- Introduction to independent scientific work on medico-biological statistics

MÜNSTER

Universität Münster (University of Münster)

- Principles of medical information

STUTTGART

Technische Hochschule Stuttgart (Technical University of Stuttgart)

- Problems of organization of libraries and documentation

TÜBINGEN

Universität Tübingen (University of Tübingen)

- Medical data documentation (with practical work)
- Registration and machine processing of medical data (with practical work).
- Colloquium on information processing

ULM

Medizinisch-Naturwissenschaftliche Universität Ulm (Medical and Natural Sciences University of Ulm)

- Medical statistics and documentation

WÜRZBURG

Universität Würzburg (University of Würzburg)

- Medical documentation and statistics

HUNGARY

According to a decision by the Committee for Science and Technology, obligatory training has been introduced in the field of scientific information for students of all academic establishments in Hungary.

Lectures and practical work last 10-20 hours and are devoted mainly to bibliography, documentation services and problems of scientific work. The aim of the practical training is to familiarize the students with the use of catalogues, abstracting journals and reprographic equipment.

BUDAPEST

Eötvös Lóránd University; the Library Science Department has a course on information science lasting 113 hours. The programme includes:

1. Introduction to information and documentation
2. Bibliography
3. Documentation processes
4. Theory and practice of searching of documents
5. Classification
6. Mechanization and automation of information processes
7. Reproduction of documents

BUDAPEST

At the **Polytechnic** in Budapest, Department of Chemistry, lectures (20 hours) are conducted in the field of information and documentation.

ITALY

BOLOGNE

At the **Istituto di Chimica Generale e Inorganica** lectures were introduced in 1960 on "Chemical nomenclature and documentation" destined for students of the Institute and lasting for one academic year.

MILANO

The **Federazione delle Associazioni Scientifiche e Techniche di Milano** organizes seminars devoted to problems of application of mechanized systems for information data processing in different branches of industry and science.

ROME

Lectures in documentation are held at the **Scuola di Perfezionamento in Storia della Medicina** to provide students with some general background information.

The **Facolte di Scienze Statistiche, Demografiche e Attuariali dell' Università degli Studi di Roma** conducts a preparatory course for the journalistic profession. The purpose of the course is to study information by means of the methods applied in sociology.

The preparatory course for the profession of a journalist includes the following subjects: history of means of information, legislation, statistics, information technique, and the theory of studying the public opinion.

An experimental course in documentation and bibliographical research in the field of the economic sciences was also held in 1962 at the Faculty, under the patronage of the Economic Information Centre for Underdeveloped Areas. Students of the Faculty of Economy and Law and employees of state and private enterprises participated in the course.

The programme included: methods of documentation activity and methods of disseminating information in the economy with particular emphasis on their fitness for less developed areas.

Lectures in documentation are also held at other faculties of the University of Rome, the Faculty of Literature and Philosophy, and in library schools.

POLAND

At the higher schools listed below there are 30-hour lectures in scientific information in the 3rd or 4th year of studies:

Academy of Mining and Metallurgy in **Cracow**
Cracow School of Economics, **Cracow**
Technical University of Cracow,**Cracow**
Technical University of Gdansk, **Gdansk**
Silesia Technical University of Gliwice, **Gliwice**
University of Lodz, **Lodz**
College of Agriculture in **Lublin**
Technical University of Poznan, **Poznan**
Nicholas Copernicus University in **Torun**
Central School of Planning and Stastistics in **Warsaw**
Warsaw Agriculture University, **Warsaw**
College of Agriculture in **Wroclaw**
Higher School of Economics in **Wroclaw**
Wroclaw B. Bierut University, **Wroclaw**

Programme	hours
1. Role of scientific information and its aims	2
2. Organization of information activities in Poland	6
3. Organization of information activities abroad	2
4. Sources of scientific information	2
5. Classification according to UDC	3
6. Methods of processing documentation and information	4
7. Information retrieval	3
8. Application of scientific information methods to students research work	6
9. Formal and informal examinations	2

Lectures on scientific information are also organized for scientists and lecturers at higher schools.

WARSAW

At the **Akademia Wychowania Fizycznego** (Academy of Physical Education) in Warsaw 15-hours lectures in scientific information are held in the 4th year of studies.

Programme

1. Progress in scientific research and growth of special literature in the world. General remarks
2. Role and aims of documentation and scientific information
3. Sources of information and their information value in:
   a) books, etc.
   b) periodicals
4. Copyright, translations, citations, etc.
5. Work of information and scientific documentation services
6. Processing of documents
7. Classification principles

8. Documentation cards as basis for registration of documents
9. Card files, catalogues and their kinds
10. Dissemination of information
11. Mechanization of information processes, general view
12. Organization of information services at home and abroad
13. Principles for writing scientific work, including Master's thesis
14. Visits to Documentation and Scientific Information Research Centre at the Academy of Physical Education

Lectures on scientific information are also held for lecturers at higher schools under the Ministry of National Defence.

In some vocational technical schools and general education secondary school programmes lectures on scientific information are combined with library science and last for a couple of hours.

Refresher courses are also organized by the Chief Technical Organization in Warsaw and by the Centre for Technical Advancement in Katowice for technical and economic personnel employed in various branches of national economy; they include scientific information in their programmes.

ROMANIA

BUCAREST

Institutul Central de Documentare Tehnică - IDT (Central Institute for Technical Documentation)
Str. Cosmonautilor 27-29

Director: V. Tărăboi

Information and documentation in applied research - A users' training course

Programme

1. Necessity of technical and scientific information in applied research
2. Individual information and documentation methods used by research workers
3. Universal Decimal Classification. Principles. Application
4. Classification of patent literature
5. Utilization of bibliographies
6. Utilization of abstracts
7. Utilization of review articles
8. Methods of investigation in applied research

Type of training	Course for users of information
Conditions of admission	Course can be attended only by research workers belonging to research institutes and industrial plant research laboratories
Duration of training	4-6 days

SOUTH AFRICA

In addition to the professional training courses for librarians the universities and the South African Council for Scientific and Industrial Research conduct training courses for users of information, which are attended both by students of the institutions and by scientific and technical personnel.

SWITZERLAND

ZÜRICH

Users of information and documentation are trained by the **Eidgenössische Technische Hochschule** (Federal Institute of Technology) in Zürich.

UNION OF SOVIET SOCIALIST REPUBLICS

MOSCOW

Moskovskij Gosudarstvennyj Universitet im. M.V. Lomonosova (Moscow State University),
Physics, chemistry, biology, geology and economics faculties
Leninskie Gory, Moscow

Course: Scientific and technical information

Programme

1. Basic principles of organization of scientific and technical information in the USSR and abroad
2. Sources of scientific documentation according to specialization of users
3. Collection and retrieval of information documents - general knowledge about information retrieval systems, classification and systematization, analytical information processing, information search and retrieval
4. Methods of utilization of primary and secondary scientific documents
5. Future developments in information activities

Type of training	University lectures
Conditions of admission	Lectures are conducted for students of physics, chemistry, biology, geology and economics faculties. Attendance at the lectures is optional
Duration of training	36 hours
Who is to be taught	Information users. The goal of the course is to improve methods of using sources of information and to give some knowledge where and how the necessary data can be obtained during and after studies
Examinations	None
Degrees or other qualifications granted	None
Language of lectures	Russian
Tuition fees	Free
Number of graduates	300 in 1968

UNITED KINGDOM

Training for users of libraries in the United Kingdom has mainly been carried out in Universities. A series of short courses on the use of the chemical literature was begun at the Liverpool College of Technology since 1959. In 1966 similar courses on the use of the biological literature were started at the University of Bradford. Both these courses, however, have over the years come to be attended more by information workers than by bench scientists.

At a series of six **Universities** (**Edinburgh**, **London University College** and **Chelsea College of Science and Technology**, **Oxford**, **Warwick** and **York**) the Office for Scientific and Technical Information is arranging courses for some 500 students to receive an information service and some instruction in its use.

In 1962 the **National Lending Library of Science and Invention** at Boston Spa, Yorks. began to run ten-day Seminars on the use of scientific literature for post-graduate research students. These have been discontinued in favour of courses for staffs of university libraries, aimed at preparing them to give instruction in the use of scientific literature to the students of their own universities. A specimen timetable for such a course on the use of scientific literature lasting 10 days is published below:

1. Tour (description) services of the National Lending Library for Science and Technology
2. Guides to published information
   a) Serials:
      - current awareness tools
      - abstracting journals
      - indexing journals
      - annual reviews
      - review serials
   b) Tools for students' specified interest
   c) Reports: indexes
   d) Books:
      - theses
      - annual reports
      - yearbooks
      - monographs
      - technical dictionaries
      - language dictionaries
      - encyclopaedias
      - bibliographies
3. Language problems
4. Record keeping
5. Information bureau
6. Keeping up with current literature
7. Library resources in the U.K.

Films: The National Lending Library for Science and Technology, and National Library of Medicine, USA

Criticism and discussion of the course

Many university libraries are now providing instruction to their users in the use of literature. Instruction is provided at many levels, ranging from freshmen to post-graduate students, and there is no common pattern. A review of the position in the various universities is given in the paper by Miss Tidmarsh.

Outside the universities, Aslib provides a two-day course entitled "Information on a shoe-string", which is designed for managers, secretaries, research workers and others who have a part-time responsibility for providing information in their organization. This course is held once or twice a year, usually outside London.

Another development is being supported by OSTI whereby retrospective searching of the medical literature by means of the Medlars technique (Medical Literature Analysis and Retrieval System) will be made easier by providing facilities for consultation with specially trained liaison officers. Five such officers - at Newcastle, London, Edinburgh and two yet to be appointed - will help users in the formulation of search profiles and will advise on availability and capacity of this computer-tape index. Courses are also being held at the Hatfield College of Technology.

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1. Bottle, R.T. Short courses on the use of specific subject literature. In: "International conference on education for scientific information work", London, 1967, pp.59-69 (published by FID)
2. Mackenzie, A.G. Reader instruction in modern universities. Aslib Proc., Vol. 21, No. 7, pp. 271-279 (July 1969)
3. Tidmarsh, M.N. Instruction in the use of academic libraries. In: Saunders, W.L. University and research library studies. Oxford, Pergamon Press, 1968, pp. 39-83
4. Wood, A.N., Barr, K.P. Courses on the structure and use of scientific literature. J.Doc., Vol. 22, No. 1 (March 1966), pp. 22-32

YUGOSLAVIA

ZAGREB

The Centar za Studij Bibliotekarstwa, Dokumentacije i Informacionih Znanosti (Centre for the Study of Librarianship, Documentation and Information Sciences) conducts training of users, intended for two kinds of students:

- specific subjects in the field of librarianship and documentation for one semester for students of the Prirodoslovno-Matematicki Fakultet (Faculty of Natural Sciences - Mathematics) of the University of Zagreb;
- special seminars in problems associated with the principles, methods and technique of scientific work, conducted twice a week for two semesters for graduates of various faculties of the University.

Part III - SPECIAL COURSES
listed with full particulars
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	country	page
Archives:		
Basic course for business archivists	Netherlands	145
Modern archives	Italy	125
Audio-visual methods of transmitting information	Italy	125
Classification:		
Classification	Hungary	99
Introductory course to the UDC	Portugal	172
Seminar in UDC	Germany	88
Dissemination of documentation	France	77
Documentation and planning studies	Italy	119
Documentation secretaries	France	76
Graphical design	France	78
Information and documentation in patent literature	Romania	178
Information in foreign languages:		
- French	Hungary	100
- Russian	Hungary	100
Mechanization of information:		
Mechanization and automation of information processes	USSR	202
Mechanization in documentation	Germany	92
Data storage	Germany	93
Mechanization of documentation	Italy	126
Organization of administrative work in the enterprise	Spain	185
Organization of information:		
Organization of documentation and scientific information	Portugal	173
Organizational and structural problems of documentation and information	Italy	124
Photodocumentation and microreproduction	Italy	126
Reference collections	USSR	203
Standardization of documentation	Portugal	174